Considered 09/21/04 WES

Abs

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=> dup rem l31 l34 l37 l38
FILE 'MEDLINE' ENTERED AT 16:03:56 ON 27 JUL 2004

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PROCESSING COMPLETED FOR L31
PROCESSING COMPLETED FOR L34
PROCESSING COMPLETED FOR L37
PROCESSING COMPLETED FOR L38
L39           51 DUP REM L31 L34 L37 L38 (21 DUPLICATES REMOVED)
                 ANSWERS '1-17' FROM FILE MEDLINE
                 ANSWERS '18-42' FROM FILE EMBASE
                 ANSWERS '43-49' FROM FILE BIOSIS
                 ANSWERS '50-51' FROM FILE WPIX

=> d que l39
L7             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  MDEA/CN
L14            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  3,4-METHYLENEDIOXYAMPHETAMINE
                 /CN
L15            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  ECSTASY/CN
L16            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  BDB/CN
L17            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 AND "3,4"
L18            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MBDB/CN
L19            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  MDPA/CN
L22            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 AND OCOC2/ESS
L23            7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 OR L15 OR L7 OR L18 OR
                 L17 OR L22
L29           14 SEA FILE=MEDLINE ABB=ON  PLU=ON  L23 AND ?ANTIBOD?
L30            3 SEA FILE=MEDLINE ABB=ON  PLU=ON  (MDEA OR EVE)(5A)?ANTIBOD?
L31           17 SEA FILE=MEDLINE ABB=ON  PLU=ON  L30 OR L29
L32            5 SEA FILE=EMBASE ABB=ON  PLU=ON  (MDEA OR EVE)(5A)?ANTIBOD?
L33           29 SEA FILE=EMBASE ABB=ON  PLU=ON  L23 AND ?ANTIBOD?
L34           34 SEA FILE=EMBASE ABB=ON  PLU=ON  L32 OR L33
L35           13 SEA FILE=BIOSIS ABB=ON  PLU=ON  L23 AND ?ANTIBOD?
L36            6 SEA FILE=BIOSIS ABB=ON  PLU=ON  (MDEA OR EVE)(5A)?ANTIBOD?
L37           19 SEA FILE=BIOSIS ABB=ON  PLU=ON  L35 OR L36
L38            2 SEA FILE=WPIX ABB=ON  PLU=ON  (MDEA OR EVE)(5A)?ANTIBOD?
L39           51 DUP REM L31 L34 L37 L38 (21 DUPLICATES REMOVED)


=> d l39 bib ab hitind 1-51

L39  ANSWER 1 OF 51     MEDLINE on STN                  DUPLICATE 1
AN   2003154929     MEDLINE
DN   PubMed ID: 12672000
TI   Altered gene expression in frontal cortex and midbrain of
     3,4-methylenedioxymethamphetamine (MDMA) treated mice: differential
     regulation of GABA transporter subtypes.
AU   Peng Weiping; Simantov Rabi
CS   Department of Molecular Genetics, Weizmann Institute of Science, Rehovot,
     Israel.
SO   Journal of neuroscience research, (2003 Apr 15) 72 (2) 250-8.
```

Journal code: 7600111. ISSN: 0360-4012.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200306
ED Entered STN: 20030403
Last Updated on STN: 20030613
Entered Medline: 20030612

AB Changes in gene expression were examined in the brain of mice treated with a drug of abuse, 3,4-methylenedioxymethamphetamine (MDMA, also called Ecstasy). Frontal cortex and midbrain mRNA, analyzed by differential display polymerase chain reaction (DD-PCR) method, showed an altered expression of several cDNAs, 11 of which were isolated, cloned and sequenced. The sequence of one MDMA-induced mRNA corresponds (99.3%) to the mouse gamma-amino butyric acid (GABA) transporter 1 (mGAT1). The established involvement of GABA neurotransmission in the activity of several abused drugs prompted us to focus herein on MDMA effect on the GABA transporter gene family. Semi-quantitative PCR analysis with primers selective to the reported mGAT1 sequence confirmed that MDMA treatment increased mGAT1 expression. Time-course study of the expression of the three GABA transporter subtypes showed that MDMA induced a differential temporal activation of mGAT1 and mGAT4, but had no effect on mGAT2. Quantitative real-time PCR further proved the increased expression of mGAT1 and mGAT4 upon MDMA treatment. Western immunoblotting with anti-GAT1 **antibodies** showed that MDMA also increased GAT1 protein levels, suggesting that neurotransmission of GABA was altered. MDMA effect was also verified in serotonin transporter knockout (-/-) mice that are insensitive behaviorally to MDMA; the drug did not increase GAT1 protein level in these mutants. In mice, tiagabine and NO-711, inhibitors of GABA transporters, restrained MDMA-induced acute toxicity and death. These results should facilitate novel approaches to prevent deleterious effects, including fatality, induced by MDMA and similar abused psychostimulants.

CT Check Tags: Male; Support, Non-U.S. Gov't
Animals
Carrier Proteins: CL, classification
*Carrier Proteins: DE, drug effects
Carrier Proteins: GE, genetics
Cloning, Molecular
*Frontal Lobe: DE, drug effects
*Gene Expression Regulation: DE, drug effects
Membrane Proteins: CL, classification
*Membrane Proteins: DE, drug effects
Membrane Proteins: GE, genetics
*Mesencephalon: DE, drug effects
Mice
Mice, Knockout: ME, metabolism
*N-Methyl-3,4-methylenedioxyamphetamine: PD, pharmacology
N-Methyl-3,4-methylenedioxyamphetamine: TO, toxicity
Nerve Tissue Proteins: DE, drug effects
Nipecotic Acids: PD, pharmacology
Oximes: PD, pharmacology
Protein Isoforms: DE, drug effects
RNA, Messenger: DE, drug effects
Reverse Transcriptase Polymerase Chain Reaction
Serotonin: GE, genetics
Serotonin: ME, metabolism

gamma-Aminobutyric Acid: DE, drug effects
RN 115103-54-3 (tiagabine); 145645-62-1 (NNC 711); **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; 50-67-9 (Serotonin); 56-12-2 (gamma-Aminobutyric Acid)
CN 0 (Carrier Proteins); 0 (GABA modulin); 0 (Membrane Proteins); 0 (Nerve Tissue Proteins); 0 (Nipecotic Acids); 0 (Oximes); 0 (Protein Isoforms); 0 (RNA, Messenger)

L39 ANSWER 2 OF 51 MEDLINE on STN DUPLICATE 2
AN 2003080026 MEDLINE
DN PubMed ID: 12592588
TI Immunohistochemical demonstration of the amphetamine derivatives 3,4-methylenedioxymethamphetamine (MDMA) and 3,4-methylenedioxyamphetamine (MDA) in human post-mortem brain tissues and the pituitary gland.
AU De Letter Els A; Espeel Marc F A; Craeymeersch Marijke E C; Lambert Willy E; Clauwaert Karine M; Dams Riet; Mortier Kjell A; Piette Michel H A
CS Ghent University, Department of Forensic Medicine, J. Kluyskensstraat 29, 9000 Ghent, Belgium.
SO International journal of legal medicine, (2003 Feb) 117 (1) 2-9. Journal code: 9101456. ISSN: 0937-9827.
CY Germany: Germany, Federal Republic of
DT (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200307
ED Entered STN: 20030221
Last Updated on STN: 20030731
Entered Medline: 20030730
AB Abuse of amphetamine derivatives such as 3,4-methylenedioxymethamphetamine (MDMA) and 3,4-methylenedioxyamphetamine (MDA) is an important issue in current forensic practice and fatalities are not infrequent. Therefore, we investigated an immunohistochemical method to detect the amphetamine analogues MDMA and MDA in human tissues. For the staining procedure, the Catalysed Signal Amplification (CSA) method using peroxidase (HRP) provided by Dako and specific monoclonal **antibodies** were used. Appropriate controls for validation of the technique were included. The distribution of these designer drugs was studied in various brain regions including the four lobes, the basal ganglia, hypothalamus, hippocampus, corpus callosum, medulla oblongata, pons, cerebellar vermis and, additionally, in the pituitary gland. A distinct positive reaction was observed in all cortical brain regions and the neurons of the basal ganglia, the hypothalamus, the hippocampus and the cerebellar vermis but in the brainstem, relatively weak staining of neurons was seen. The reaction presented as a mainly diffuse cytoplasmic staining of the perikaryon of the neurons, and often axons and dendrites were also visualised. In addition, the immunoreactivity was present in the white matter. In the pituitary gland, however, distinct immunopositive cells were observed, with a prominent heterogeneity. The immunohistochemical findings were supported by the toxicological data. This immunostaining technique can be used as evidence of intake or even poisoning with MDMA and/or MDA and can be an interesting tool in forensic practice when the usual samples for toxicological analysis are not available. Furthermore, this method can be used to investigate the distribution of these substances in the human body.
CT Check Tags: Human; Male
3,4-Methylenedioxyamphetamine: BL, blood
*3,4-Methylenedioxyamphetamine: ME, metabolism
3,4-Methylenedioxyamphetamine: PO, poisoning

Adult
*Brain: ME, metabolism
Chromatography, High Pressure Liquid
Fatal Outcome
Hallucinogens: BL, blood
Hallucinogens: CH, chemistry
*Hallucinogens: ME, metabolism
Hallucinogens: PO, poisoning
Immunohistochemistry
Mass Fragmentography
N-Methyl-3,4-methylenedioxyamphetamine: BL, blood
*N-Methyl-3,4-methylenedioxyamphetamine: ME, metabolism
N-Methyl-3,4-methylenedioxyamphetamine: PO, poisoning
*Pituitary Gland: ME, metabolism
*Substance Abuse Detection: MT, methods
Tissue Distribution
RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);**
4764-17-4 (3,4-Methylenedioxyamphetamine)
CN 0 (Hallucinogens)

L39 ANSWER 3 OF 51 MEDLINE on STN DUPLICATE 3
AN 2002718201 MEDLINE
DN PubMed ID: 12480182
TI Synaptotagmin I and IV are differentially regulated in the brain by the recreational drug 3,4-methylenedioxymethamphetamine (MDMA).
AU Peng Weiping; Premkumar Arumugam; Mossner Rainald; Fukuda Mitsunori; Lesch K Peter; Simantov Rabi
CS Department of Molecular Genetics, Weizmann Institute of Science, Rehovot 76100, Israel.
SO Brain research. Molecular brain research, (2002 Dec) 108 (1-2) 94-101. Journal code: 8908640. ISSN: 0169-328X.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200306
ED Entered STN: 20021218
Last Updated on STN: 20030617
Entered Medline: 20030616
AB 3,4-Methylenedioxymethamphetamine (MDMA or Ecstasy) is a widely abused drug. In brains of mice exposed to MDMA, we recently detected altered expression of several cDNAs and genes by using the differential display polymerase chain reaction (PCR) method. Expression of one such cDNA, which exhibited 98% sequence homology with the synaptic vesicle protein synaptotagmin IV, decreased 2 h after MDMA treatment. Herein, the effect of MDMA on expression of both synaptotagmin I and IV was studied in detail, since the two proteins are functionally interrelated. PCR analyses (semi-quantitative and real-time) confirmed that upon treatment with MDMA, expression of synaptotagmin IV decreased both in the midbrain and frontal cortex of mice. Decreases in the protein levels of synaptotagmin IV were confirmed by Western immunoblotting with anti-synaptotagmin IV **antibodies.** In contrast, the same exposure to MDMA increased expression of synaptotagmin I in the midbrain, a region rich in serotonergic neurons, but not in the frontal cortex. This differential expression was confirmed at the protein level with anti-synaptotagmin I **antibodies.** MDMA did not induce down- or up-regulation of synaptotagmin IV and I, respectively, in serotonin transporter knockout mice (-/-) that are not sensitive to MDMA. Therefore, psychoactive drugs, such as MDMA, appear to modulate expression

of synaptic vesicle proteins, and possibly vesicle trafficking, in the brain.
CT Check Tags: Human; Male; Support, Non-U.S. Gov't
Animals
*Brain: DE, drug effects
*Brain: ME, metabolism
Carrier Proteins: GE, genetics
Carrier Proteins: ME, metabolism
Down-Regulation: PH, physiology
Hallucinogens
Membrane Glycoproteins: GE, genetics
*Membrane Glycoproteins: ME, metabolism
Mice
Mice, Inbred C57BL
Mice, Knockout
*N-Methyl-3,4-methylenedioxyamphetamine: PD, pharmacology
Nerve Tissue Proteins: GE, genetics
*Nerve Tissue Proteins: ME, metabolism
RNA, Messenger: ME, metabolism
*Serotonin Agents: PD, pharmacology
RN 134193-27-4 (synaptotagmin); **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**
CN 0 (Carrier Proteins); 0 (Hallucinogens); 0 (Membrane Glycoproteins); 0 (Nerve Tissue Proteins); 0 (RNA, Messenger); 0 (SLC6A4 protein, human); 0 (Serotonin Agents)

L39 ANSWER 4 OF 51 MEDLINE on STN DUPLICATE 5
AN 2001565533 MEDLINE
DN PubMed ID: 11672589
TI Methylenedioxymethamphetamine (MDMA; 'Ecstasy') suppresses antigen specific IgG2a and IFN-gamma production.
AU Connor T J; Connelly D B; Kelly J P
CS Department of Pharmacology, National University of Ireland, Galway, Ireland.. thomas.connor@nuigalway.ie
SO Immunology letters, (2001 Sep 3) 78 (2) 67-73.
Journal code: 7910006. ISSN: 0165-2478.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200112
ED Entered STN: 20011024
Last Updated on STN: 20020122
Entered Medline: 20011207
AB Methylenedioxymethiamphetamine (MDMA; "Ecstasy") is a widely abused amphetamine derivative. In the present study, we examined the effect of acute MDMA administration on an antigen specific immune response. Responsiveness to an in vivo challenge with the soluble protein antigen keyhole limpet haemocyanin (KLH) was examined in rats following MDMA administration (2.5, 5 or 10 mg/kg; i.p.). KLH-specific serum IgM concentrations were measured 7 days following challenge, and serum IgG concentrations were measured 14 days following the KLH challenge. In addition, antigen-specific IFN-gamma and IL-6 production was measured in KLH-stimulated splenocytes. MDMA did not alter the KLH-specific IgM response. In contrast, MDMA (5 and 10 mg/kg) provoked a significant suppression of KLH-specific IgG production. Thus, MDMA administration did not alter the initial generation of the **antibody** response but rather inhibited **antibody** class switching from IgM to IgG. Two pathways for the genetic switch from IgM to IgG production were

investigated. One pathway requires the Th(1) type cytokine IFN-gamma to stimulate IgM-secreting cells to switch to IgG(2a)-secreting cells. Another pathway requires the Th(2) type cytokines IL-4 and IL-6 to stimulate IgM-secreting cells to switch to IgG(1)-secreting cells. IgG(1) and IgG(2a) levels were measured to determine if these two pathways were differentially affected. The results indicate that only IgG(2a) levels were decreased following MDMA administration. Furthermore, this decrease in IgG(2a) was accompanied by decreased KLH-specific IFN-gamma production 14 days post KLH administration. In conclusion, these data indicate that MDMA alters the ability to switch from IgM to IgG(2a) production, possibly by reducing IFN-gamma. Potential health consequences for MDMA users are discussed.

CT Check Tags: Female; Support, Non-U.S. Gov't
Animals
***Antibody Specificity: DE, drug effects**
*Epitopes, T-Lymphocyte: IM, immunology
*Hemocyanin: IM, immunology
*Immunoglobulin G: BI, biosynthesis
Immunoglobulin G: BL, blood
Immunoglobulin M: BI, biosynthesis
Immunoglobulin M: BL, blood
Injections, Intraperitoneal
*Interferon Type II: AI, antagonists & inhibitors
*Interferon Type II: BI, biosynthesis
Interferon Type II: BL, blood
Interleukin-6: BI, biosynthesis
Mollusca: IM, immunology
N-Methyl-3,4-methylenedioxyamphetamine: AD, administration & dosage
*N-Methyl-3,4-methylenedioxyamphetamine: PD, pharmacology
Rats
Rats, Sprague-Dawley
Time Factors

RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; 82115-62-6 (Interferon Type II); 9013-72-3 (Hemocyanin)

CN 0 (Epitopes, T-Lymphocyte); 0 (Immunoglobulin G); 0 (Immunoglobulin M); 0 (Interleukin-6); 0 (keyhole-limpet hemocyanin)

L39 ANSWER 5 OF 51 MEDLINE on STN DUPLICATE 7
AN 96425217 MEDLINE
DN PubMed ID: 8827668
TI Antibodies to arthropod-borne encephalitis viruses in small mammals from southern Florida.
AU Day J F; Stark L M; Zhang J T; Ramsey A M; Scott T W
CS Florida Medical Entomology Laboratory, University of Florida, Vero Beach 32962, USA.
NC AI-20983 (NIAID)
AI-22119 (NIAID)
AI-26787 (NIAID)
SO Journal of wildlife diseases, (1996 Jul) 32 (3) 431-6.
Journal code: 0244160. ISSN: 0090-3558.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199701
ED Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970121
AB From 1987 through 1991, blood samples were collected from 10 species of

small mammals in Indian River Country, Florida (USA). Sera from 1,347 animals were analyzed for hemagglutination-inhibition (HI) antibody to St. Louis encephalitis (SLE) and eastern equine encephalitis (EEE) viruses. Of these, 75 (5.6%) were positive for HI antibody to SLE virus and 121 (9.0%) were positive for EEE antibody. Sera from five mammalian species were tested for neutralizing (NT) antibody to SLE, EEE, Highlands J (HJ a member of the western equine encephalitis virus complex), or Everglades (EVE, a member of the Venezuelan equine encephalitis complex) viruses. By serum neutralization tests, 26 (46%) of 57 had SLE antibodies, 14 (24%) of 58 had EEE antibodies, two (3.2%) of 63 had HJ antibodies, and 9 (14%) of 63 had **EVE antibodies.** One Sigmodon hispidus and one Peromyscus gossypinus had NT antibodies both to EEE and HJ viruses. Blood samples from 512 mammals were tested for virus. Isolations of one EVE virus and two unidentified arenaviruses were made from P. gossypinus and one EVE virus isolate was made from a S. hispidus.

CT Check Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Animals
*Antibodies, Viral: BL, blood
*Encephalitis Virus, Eastern Equine: IM, immunology
*Encephalitis Virus, St. Louis: IM, immunology
Encephalitis, St. Louis: EP, epidemiology
*Encephalitis, St. Louis: VE, veterinary
Encephalomyelitis, Equine: EP, epidemiology
*Encephalomyelitis, Equine: VE, veterinary
Florida: EP, epidemiology
Hemagglutination Inhibition Tests: VE, veterinary
Hesperomyinae
*Mammals
Neutralization Tests: VE, veterinary
Opossums
Peromyscus
Prevalence
Rodent Diseases: EP, epidemiology
Sciuridae

CN 0 (Antibodies, Viral)

L39 ANSWER 6 OF 51 MEDLINE on STN DUPLICATE 9
AN 94359473 MEDLINE
DN PubMed ID: 7915818
TI Mutations in some Polycomb group genes of Drosophila interfere with regulation of segmentation genes.
AU McKeon J; Slade E; Sinclair D A; Cheng N; Couling M; Brock H W
CS Department of Zoology, University of British Columbia, Vancouver, Canada.
SO Molecular & general genetics : MGG, (1994 Sep 1) 244 (5) 474-83.
Journal code: 0125036. ISSN: 0026-8925.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199410
ED Entered STN: 19941013
Last Updated on STN: 19950206
Entered Medline: 19941006
AB Mutations in several Polycomb (Pc) group genes cause maternal-effect or zygotic segmentation defects, suggesting that Pc group genes may regulate the segmentation genes of Drosophila. We show that individuals doubly heterozygous for mutations in polyhomeotic and six other Pc group genes show gap, pair rule, and segment polarity segmentation defects. We examined double heterozygous combinations of Pc group and segmentation

mutations for enhancement of adult and embryonic segmentation defects. Posterior sex combs and polyhomeotic interact with Kruppel and enhance embryonic phenotypes of hunchback and knirps, and polyhomeotic enhances even-skipped. Surprisingly, flies carrying duplications of extra sex combs (esc), that were heterozygous for mutations of even-skipped (eve), were extremely subvital. Embryos and surviving adults of this genotype showed strong segmentation defects in even-numbered segments. **Antibody** studies confirm that expression of **eve** is suppressed by duplications of esc. However, esc duplications have no effect on other gap or pair rule genes tested. To our knowledge, this is only the second triplo-abnormal phenotype associated with Pc group genes. Duplications of nine other Pc group genes have no detectable effect on eve. Expression of engrailed (en) was abnormal in the central nervous systems of most Pc group mutants. These results support a role for Pc genes in regulation of some segmentation genes, and suggest that esc may act differently from other Pc group genes.

CT Check Tags: Female; Male; Support, Non-U.S. Gov't
Abdomen: EM, embryology
Animals
*Central Nervous System: EM, embryology
Chromatin: CH, chemistry
*Drosophila melanogaster: EM, embryology
Drosophila melanogaster: GE, genetics
Ectoderm: PH, physiology
Embryo, Nonmammalian: GD, growth & development
*Gene Expression Regulation
*Genes, Homeobox
*Genes, Insect
Heterozygote
Multigene Family
Repressor Proteins: PH, physiology
Thorax: EM, embryology
Transcription, Genetic

CN 0 (Chromatin); 0 (Repressor Proteins)

GEN Asx; Pc; Pcl; Psc; Sce; Scm; en; esc; eve; ph

L39 ANSWER 7 OF 51 MEDLINE on STN DUPLICATE 10

AN 94158817 MEDLINE

DN PubMed ID: 7906857

TI Participation of cytochrome P450-2B and -2D isozymes in the demethylenation of methylenedioxymethamphetamine enantiomers by rats.

AU Kumagai Y; Lin L Y; Hiratsuka A; Narimatsu S; Suzuki T; Yamada H; Oguri K; Yoshimura H; Cho A K

CS Department of Pharmacology, University of California, Los Angeles School of Medicine 90024.

NC DA04206 (NIDA)

SO Molecular pharmacology, (1994 Feb) 45 (2) 359-65.
Journal code: 0035623. ISSN: 0026-895X.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199403

ED Entered STN: 19940406
Last Updated on STN: 19950206
Entered Medline: 19940331

AB The cytochrome P450 isozymes in rat liver microsomes that catalyze the demethylenation of methylenedioxymethamphetamine enantiomers to the corresponding dihydroxymethamphetamine were characterized.

Dihydroxymethamphetamine formation in liver microsomes from male Sprague-Dawley rats exhibited multienzyme kinetics, with Km values in the micromolar/millimolar range. The stereoselectivity [(+)-isomer versus (-)-isomer] varied from 0.78 to 1.94 after pretreatment of the rats with phenobarbital, 3-methylcholanthrene, pregnenolone-16 alpha-carbonitrile, or pyrazole, suggesting that different isozymes participate in the reaction. The low-Km demethylenation was not induced by these compounds and was not inhibited by **antibodies** raised against CYP2C11. Liver microsomes from female Dark-Agouti rats, a strain genetically deficient in CYP2D1, exhibited demethylenation activities that were 9% of those in microsomes from male Sprague-Dawley rats. The low-Km demethylenation was also inhibited by CYP2D substrates such as sparteine, bufuralol, or desipramine and was almost completely inhibited by **antibodies** against P450 BTL, which belongs to the CYP2D family. The higg-Km demethylation activity was induced by phenobarbital and pregnenolone-16 alpha-carbonitrile and the activity in both untreated and phenobarbital-induced microsomes was suppressed by anti-CYP2B1 IgG. Experiments with IgG raised against cytochrome b5 suggested that the hemoprotein contributed to the low-Km activity but not the high-Km activity. These results indicate that cytochrome P450 isozymes belonging to the CYP2D subfamily catalyze demethylenation with low Km values and that the reaction occurring with high Km values is likely to be mediated by members of the CYP2B family, but with the possible participation of other phenobarbital-inducible isoforms.

CT Check Tags: Female; Male; Support, U.S. Gov't, P.H.S.
*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives
3,4-Methylenedioxyamphetamine: ME, metabolism
Animals
Antibodies
Biotransformation
Cytochrome P-450 Enzyme System: AI, antagonists & inhibitors
Cytochrome P-450 Enzyme System: IM, immunology
*Cytochrome P-450 Enzyme System: ME, metabolism
Designer Drugs: ME, metabolism
Enzyme Induction
Isoenzymes: AI, antagonists & inhibitors
Isoenzymes: IM, immunology
*Isoenzymes: ME, metabolism
Kinetics
*Microsomes, Liver: EN, enzymology
N-Methyl-3,4-methylenedioxyamphetamine
Phenobarbital: PD, pharmacology
Rats
Rats, Sprague-Dawley
Stereoisomerism

RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 50-06-6 (Phenobarbital); 9035-51-2 (Cytochrome P-450 Enzyme System)

CN 0 (**Antibodies**); 0 (Designer Drugs); 0 (Isoenzymes)

L39 ANSWER 8 OF 51 MEDLINE on STN DUPLICATE 11
AN 93062835 MEDLINE
DN PubMed ID: 1435745
TI Regiochemical differences in cytochrome P450 isozymes responsible for the oxidation of methylenedioxyphenyl groups by rabbit liver.
AU Kumagai Y; Lin L Y; Philpot R M; Yamada H; Oguri K; Yoshimura H; Cho A K
CS Department of Pharmacology, UCLA School of Medicine 90024.
NC DA 04206 (NIDA)
SO Molecular pharmacology, (1992 Oct) 42 (4) 695-702.

Journal code: 0035623. ISSN: 0026-895X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199212
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921201
AB The cytochrome P450 isozymes catalyzing the oxidation of the methylenedioxyphenyl compounds methylenedioxybenzene (MDB) and methylenedioxyamphetamine (MDA) have been investigated in rabbit liver preparations. The aromatic ring in MDB undergoes both demethylenation to catechol and aromatic hydroxylation to sesamol, whereas that in MDA undergoes only demethylenation to dihydroxyamphetamine. Formation of catechol and sesamol from MDB in microsomal incubation mixtures was enhanced about 5- and 3-fold, respectively, by pretreatment of the rabbits with phenobarbital, which induced CYP2B4 and CYP4B1. The cytochrome P450 isozyme responsible for aromatic hydroxylation of MDB was induced by beta-naphthoflavone and was inhibited by alpha-naphthoflavone. Microsomal demethylenation of MDA was minimally sensitive to pretreatment of the rabbits with phenobarbital, beta-naphthoflavone, pyrazole, or rifampicin. However, MDA competitively inhibited the N-demethylation of erythromycin. **Antibodies** against CYP2B4, but not those against CYP4B1, caused a marked inhibition of the demethylenation and aromatic hydroxylation of MDB. **Antibodies** against CYP2C3 did not inhibit the demethylenation of MDA, nor did substrates or inhibitors of the CYP2D family except for bufuralol. MDB and MDA were both capable of forming metabolic intermediate complexes, and the rate of complex formation was accelerated by phenobarbital induction. Reconstitution experiments with CYP2B4 suggested that phenobarbital-inducible complex formation from MDA was not due to the carbene pathway involving the methylenedioxy group but was due to oxidation of the amino group. These results indicate that CYP2B4 oxidizes different regions of methylenedioxyphenyl compounds depending on their structure. MDB undergoes oxidation at the methylenedioxy group (major) and the benzene ring (minor). MDA is oxidized at the alkylamino side chain at the nitrogen and alpha-carbon. The results suggested that one or more constitutive isoforms (probably unknown) of cytochrome P450 present in rabbit liver microsomes are primarily responsible for MDA demethylenation but that CYP3A6 contributes slightly.
CT Check Tags: Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
*3,4-Methylenedioxyamphetamine: ME, metabolism
Animals
Biotransformation
*Cytochrome P-450 Enzyme System: ME, metabolism
*Dioxoles: ME, metabolism
Enzyme Induction
Isoenzymes: ME, metabolism
*Microsomes, Liver: EN, enzymology
Oxidation-Reduction
Rabbits
RN 274-09-9 (1,3-benzodioxole); **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 9035-51-2 (Cytochrome P-450 Enzyme System)
CN 0 (Dioxoles); 0 (Isoenzymes)

L39 ANSWER 9 OF 51 MEDLINE on STN DUPLICATE 12
AN 92354191 MEDLINE

DN PubMed ID: 1386563
TI On the origin of C3 nephritic factor (antibody to the alternative pathway C3 convertase): evidence for the Adam and **Eve** concept of **autoantibody** production.
AU Spitzer R E; Stitzel A E; Tsokos G
CS Department of Pediatrics, SUNY Health Science Center, Syracuse 13210.
SO Clinical immunology and immunopathology, (1992 Sep) 64 (3) 177-83.
Journal code: 0356637. ISSN: 0090-1229.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
(META-ANALYSIS)
LA English
FS Priority Journals
EM 199209
ED Entered STN: 19920925
Last Updated on STN: 19920925
Entered Medline: 19920908
AB The antibody to the alternative pathway C3 convertase, designated C3 nephritic factor or C3NeF, is an autoantibody that is produced in everyone from the time of birth. The elaboration of C3NeF utilizes germline V-region genes which undergo antigen-driven affinity maturation, resulting in an autoantibody that is produced in large amounts with high affinity and narrow specificity. Our data also suggest that under normal conditions, the idiotypic network may play an important part in the control of this autoantibody. Further, a defect in the network with loss of control or inappropriate stimulation may be an underlying mechanism in the unrestricted production of C3NeF in patients with membranoproliferative glomerulonephritis.
CT Check Tags: Human
Adult
Antibodies, Anti-Idiotypic: IM, immunology
Antibody Formation
Autoantibodies: IM, immunology
*Complement 3 Nephritic Factor: IM, immunology
Immunoglobulin Idiotypes: IM, immunology
Infant, Newborn
Meta-Analysis
CN 0 (Antibodies, Anti-Idiotypic); 0 (Autoantibodies); 0 (Complement 3 Nephritic Factor); 0 (Immunoglobulin Idiotypes)

L39 ANSWER 10 OF 51 MEDLINE on STN DUPLICATE 13
AN 91087500 MEDLINE
DN PubMed ID: 1979827
TI Detection of D,L-amphetamine, D,L-methamphetamine, and illicit amphetamine analogs using diagnostic products corporation's amphetamine and methamphetamine radioimmunoassay.
AU Cody J T
CS Air Force Drug Testing Laboratory, Brooks AFB, Texas 78235-5000.
SO Journal of analytical toxicology, (1990 Sep-Oct) 14 (5) 321-4.
Journal code: 7705085. ISSN: 0146-4760.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199102
ED Entered STN: 19910322
Last Updated on STN: 19950206
Entered Medline: 19910201
AB Cross-reactivity with Diagnostic Products Corporation (DPC) amphetamine

and methamphetamine radioimmunoassay (RIA) reagents was determined for amphetamine, methamphetamine, and a number of amphetamine analogs. Concentrations from 100 to 100,000 ng/mL were assayed. 3,4-Methylenedioxyamphetamine (MDA) and 3,4-methylenedioxymethamphetamine (MDMA) showed significant cross-reactivity for the amphetamine and methamphetamine reagents respectively. 4-Hydroxymethamphetamine, 3,4-methylenedioxyethylamphetamine (MDEA), and N,N-dimethyl-MDA also showed significant cross-reactivity with the methamphetamine reagents, but less than MDMA. None of the other analogs showed a positive result with the amphetamine or methamphetamine reagents at even the highest concentration, although several did show measurable cross-reactivity. The L isomers of amphetamine and methamphetamine showed substantially less cross-reactivity than the D forms to which the respective **antibody** systems are targeted.

CT 3,4-Methylenedioxyamphetamine: AA, analogs & derivatives
3,4-Methylenedioxyamphetamine: AN, analysis
3,4-Methylenedioxyamphetamine: IM, immunology
*Amphetamines: AN, analysis
Cross Reactions
Indicators and Reagents
Isomerism
*Methamphetamine: AN, analysis
N-Methyl-3,4-methylenedioxyamphetamine
Radioimmunoassay

RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 537-46-2 (Methamphetamine)

CN 0 (Amphetamines); 0 (Indicators and Reagents)

L39 ANSWER 11 OF 51 MEDLINE on STN DUPLICATE 14

AN 89038469 MEDLINE

DN PubMed ID: 2903272

TI Comparison of three commercial amphetamine immunoassays for detection of methamphetamine, methylenedioxyamphetamine, methylenedioxymethamphetamine, and methylenedioxyethylamphetamine.

AU Ruangyuttikarn W; Moody D E

CS Department of Pharmacology and Toxicology, University of Utah, College of Pharmacy, Salt Lake City 84112.

SO Journal of analytical toxicology, (1988 Jul-Aug) 12 (4) 229-33. Journal code: 7705085. ISSN: 0146-4760.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198812

ED Entered STN: 19900308
Last Updated on STN: 19960129
Entered Medline: 19881220

AB Three commercial immunoassays for detection of amphetamines in urine, Abuscreen radioimmunoassay (RIA), enzyme-multiplied immunoassay technique (EMIT), and the TDx fluorescence polarization immunoassay (FPIA), have been investigated for detection of methamphetamine, 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxymethamphetamine (MDMA), and 3,4-methylenedioxyethylamphetamine (MDE). Blank urine was spiked with 0.1 to 3000 micrograms/mL amphetamine analog and used as sample in the assays. With the RIA and FPIA, MDA displayed a higher cross-reactivity to amphetamine than other analogs, but with EMIT, methamphetamine was relatively similar to amphetamine while MDA, MDMA, and MDE were less reactive. The high specificity RIA and the EMIT confirmation reagents for

urine amphetamines produced significant, but relatively minor, reduction in the detectability of these analogs. The variation in cross-reactivity seen between the different assays suggests that RIA, EMIT, and FPIA **antibodies** have different recognition sites; however, all three immunoassays do detect the illicit amphetamine analogs to varying degrees.

CT Check Tags: Comparative Study; Support, Non-U.S. Gov't
3,4-Methylenedioxyamphetamine: AA, analogs & derivatives
*3,4-Methylenedioxyamphetamine: UR, urine
*Amphetamines: UR, urine
Cross Reactions
Immunoassay
Immunoenzyme Techniques
*Methamphetamine: UR, urine
N-Methyl-3,4-methylenedioxyamphetamine
Radioimmunoassay
Reagent Kits, Diagnostic
*Street Drugs: UR, urine

RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 537-46-2 (Methamphetamine); **82801-81-8 (3,4-methylenedioxyethamphetamine)**

CN 0 (Amphetamines); 0 (Reagent Kits, Diagnostic); 0 (Street Drugs)

L39 ANSWER 12 OF 51 MEDLINE on STN
AN 2004021750 MEDLINE
DN PubMed ID: 14504335
TI Acute basilar artery occlusion treated by thromboaspiration in a cocaine and ecstasy abuser.
AU Vallee J-N; Crozier S; Guillevin R; Obadia M; Lo D; Barragan-Campos H M; Samson Y; Chiras J
CS Department of Diagnostic and Interventional Neuroradiology, Pitie-Salpetriere Hospital, Medical Universite of Paris, France.. valleejn@free.fr
SO Neurology, (2003 Sep 23) 61 (6) 839-41.
Journal code: 0401060. ISSN: 1526-632X.
CY United States
DT (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 200404
ED Entered STN: 20040115
Last Updated on STN: 20040417
Entered Medline: 20040416
AB Thromboaspiration was performed in a young adult in a coma because of acute basilar artery occlusion associated with cocaine and ecstasy abuse 30 hours after symptom onset. There was complete recanalization of the basilar artery and favorable recovery. Because cocaine and ecstasy abuse has been reported to be a risk factor for ischemic stroke and fatal brain hemorrhage, thromboaspiration may be an alternative therapy to thrombolysis.
CT Check Tags: Female; Human
Adult
Antibodies, Monoclonal: TU, therapeutic use
Brain Ischemia: DT, drug therapy
*Brain Ischemia: ET, etiology
Brain Ischemia: SU, surgery
Catheterization
Cerebral Hemorrhage: PC, prevention & control
*Cocaine: AE, adverse effects

Cocaine: PK, pharmacokinetics
*Cocaine-Related Disorders: CO, complications
Coma: ET, etiology
Immunoglobulins, Fab: TU, therapeutic use
*N-Methyl-3,4-methylenedioxyamphetamine: AE, adverse effects
N-Methyl-3,4-methylenedioxyamphetamine: PK, pharmacokinetics
Pons: BS, blood supply
Serotonin: PH, physiology
Severity of Illness Index
*Substance-Related Disorders: CO, complications
Suction: IS, instrumentation
Thrombectomy: IS, instrumentation
*Thrombectomy: MT, methods
Thrombophilia: CI, chemically induced
Vasospasm, Intracranial: CI, chemically induced
Vertebrobasilar Insufficiency: DT, drug therapy
Vertebrobasilar Insufficiency: ET, etiology
*Vertebrobasilar Insufficiency: SU, surgery

RN 143653-53-6 (abciximab); **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine)**; 50-36-2 (Cocaine); 50-67-9 (Serotonin)
CN 0 (**Antibodies**, Monoclonal); 0 (Immunoglobulins, Fab)

L39 ANSWER 13 OF 51 MEDLINE on STN
AN 1999015555 MEDLINE
DN PubMed ID: 9800936
TI **Antibodies** against copper-oxidised and malondialdehyde-modified low density lipoproteins in pre-eclampsia pregnancies.
AU Uotila J; Solakivi T; Jaakkola O; Tuimala R; Lehtimaki T
CS Department of Obstetrics and Gynaecology, Tampere University Hospital, Finland.
SO British journal of obstetrics and gynaecology, (1998 Oct) 105 (10) 1113-7. Journal code: 7503752. ISSN: 0306-5456.
CY ENGLAND: United Kingdom
DT (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199811
ED Entered STN: 19990106
Last Updated on STN: 19990106
Entered Medline: 19981110
AB OBJECTIVE: To measure auto-**antibodies** against oxidatively modified low density lipoprotein (LDL) in pre-eclamptic pregnancies using two different techniques. DESIGN: Clinical study comparing pre-eclamptic and normal pregnancies. SETTING: Tampere University Hospital, Finland. POPULATION: Twenty-one primigravidae with pre-eclampsia and 13 healthy, normotensive primigravidae as controls. METHODS: The serum titers of **antibodies** against both malondialdehyde-modified and copper-oxidised LDL (MDA-LDL and copper-ox LDL) were analysed and related to parameters reflecting the severity of pre-eclampsia. RESULTS: There was a positive correlation ($r = 0.58$) between **antibodies** against MDA-LDL and copper-ox LDL in women with pre-eclampsia but not in healthy pregnant controls. The **antibody** levels against copper-ox LDL, but not against MDA-LDL, were higher in women with pre-eclampsia than in women with a normal pregnancy ($P < 0.01$). While the **antibody** titers against copper-ox LDL did not correlate with any parameter reflecting the severity of pre-eclampsia, those against MDA-LDL showed a positive correlation with the level of diastolic blood pressure ($r = 0.54$)

and a negative correlation with platelet count (r = -0.61) in women with pre-eclampsia. CONCLUSION: There are increased titers of serum **autoantibodies** against copper-oxidised LDL in pre-eclampsia, which may reflect enhanced lipid peroxidation involving circulating lipoproteins.

CT Check Tags: Comparative Study; Female; Human; Support, Non-U.S. Gov't
3,4-Methylenedioxyamphetamine: IM, immunology
Adult
***Autoantibodies: AN, analysis**
Copper: IM, immunology
Gestational Age
*Lipoproteins, LDL: IM, immunology
Lipoproteins, LDL: ME, metabolism
Maternal Age
Oxidation-Reduction
*Pre-Eclampsia: IM, immunology
Pregnancy
Sensitivity and Specificity

RN **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 7440-50-8 (Copper)
CN 0 (**Autoantibodies**); 0 (Lipoproteins, LDL)

L39 ANSWER 14 OF 51 MEDLINE on STN
AN 96285881 MEDLINE
DN PubMed ID: 8721431
TI Fatal poisoning by MDMA (ecstasy) and MDEA: a case report.
AU Fineschi V; Masti A
CS Department of Forensic Science, University of Siena, Policlinico Le Scotte, Italy.
SO International journal of legal medicine, (1996) 108 (5) 272-5.
Journal code: 9101456. ISSN: 0937-9827.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199610
ED Entered STN: 19961015
Last Updated on STN: 19961015
Entered Medline: 19961002
AB The first observation of lethal recreational use of MDMA (ecstasy) and MDEA in Italy is reported, together with extensive toxicological and histopathological documentation. Findings such as disseminated intravascular coagulation, rarely reported before, are colocated in the framework of the toxic syndrome for a better definition of criteria for forensic diagnosis.
CT Check Tags: Human
*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives
3,4-Methylenedioxyamphetamine: PK, pharmacokinetics
3,4-Methylenedioxyamphetamine: PO, poisoning
Capillaries: PA, pathology
Designer Drugs: PK, pharmacokinetics
*Designer Drugs: PO, poisoning
Fluorescent Antibody Technique
Hallucinogens: PK, pharmacokinetics
*Hallucinogens: PO, poisoning
Kidney Tubules: PA, pathology
Lung: BS, blood supply
Mass Fragmentography
Myoglobinuria: BL, blood
*Myoglobinuria: CI, chemically induced

Myoglobinuria: PA, pathology
N-Methyl-3,4-methylenedioxyamphetamine: PK, pharmacokinetics
*N-Methyl-3,4-methylenedioxyamphetamine: PO, poisoning
Overdose: BL, blood
*Overdose: PA, pathology
Poisoning: BL, blood
*Poisoning: PA, pathology
Pulmonary Embolism: BL, blood
Pulmonary Embolism: CI, chemically induced
Pulmonary Embolism: PA, pathology
RN **42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine); 4764-17-4 (3,4-Methylenedioxyamphetamine); 82801-81-8 (3,4-methylenedioxyethamphetamine)**
CN 0 (Designer Drugs); 0 (Hallucinogens)

L39 ANSWER 15 OF 51 MEDLINE on STN
AN 94350052 MEDLINE
DN PubMed ID: 8070524
TI Immunocytochemical evidence for serotonergic neurotoxicity of N-ethyl-methylenedioxyamphetamine (MDE).
AU Series H G; Molliver M E
CS Department of Neuroscience, Johns Hopkins University School of Medicine, Baltimore, Maryland 21205.
NC NS15199 (NINDS)
SO Experimental neurology, (1994 Jul) 128 (1) 50-8.
Journal code: 0370712. ISSN: 0014-4886.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199409
ED Entered STN: 19941006
Last Updated on STN: 19960129
Entered Medline: 19940923
AB N-ethyl-3,4-methylenedioxyamphetamine (MDE) is one of a group of substituted amphetamines which have effects on several serotonergic markers such as tissue levels of serotonin and activity of tryptophan hydroxylase. In this study we have compared its effects on the rat brain with those of p-chloroamphetamine (PCA) using serotonin immunocytochemistry with a primary 5-HT **antibody** and a secondary avidin-biotin-HRP **antibody.** Two weeks after multiple (40 mg/kg x 8), but not single, injections of MDE there was a pronounced reduction in the number of serotonin-immunoreactive axons seen. This reduction was most marked in areas innervated extensively by serotonergic axons with varicosities of the fine type (e.g., posterior cerebral cortex and area CA1 of hippocampus). The reduction was quantitatively less than but qualitatively similar to that produced by a single dose of PCA (10 mg/kg). In material from short (3 day) survival animals, a large number of morphologically highly abnormal forms could be seen, suggestive of degenerating axons. A parallel series of sections prepared using tyrosine hydroxylase immunocytochemistry showed no differences between saline controls and PCA- or MDE-treated animals. We conclude that multiple systemic injections of MDE reduce the number of serotonin-immunoreactive fibers in the rat brain 2 weeks after treatment.
CT Check Tags: Comparative Study; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives
3,4-Methylenedioxyamphetamine: PO, poisoning
Animals

Brain: CY, cytology
*Brain: DE, drug effects
*Brain: ME, metabolism
Cell Survival: DE, drug effects
Immunohistochemistry
*Neurons: DE, drug effects
*Neurons: ME, metabolism
Rats
Rats, Sprague-Dawley
*Serotonin: ME, metabolism
Time Factors
p-Chloroamphetamine: PD, pharmacology
RN **4764-17-4 (3,4-Methylenedioxyamphetamine)**; 50-67-9 (Serotonin); 64-12-0 (p-Chloroamphetamine); **82801-81-8 (3,4-methylenedioxyethamphetamine)**

L39 ANSWER 16 OF 51 MEDLINE on STN
AN 90189795 MEDLINE
DN PubMed ID: 2314063
TI Cross-reactivity of amphetamine analogues with Roche Abuscreen radioimmunoassay reagents.
AU Cody J T
CS Air Force Drug Testing Laboratory, Brooks AFB, TX 78235-5000.
SO Journal of analytical toxicology, (1990 Jan-Feb) 14 (1) 50-3.
Journal code: 7705085. ISSN: 0146-4760.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199004
ED Entered STN: 19900601
Last Updated on STN: 19980206
Entered Medline: 19900425
AB Cross-reactivity of amphetamine analogues with the Abuscreen amphetamine radioimmunoassay reagents was determined for both the standard and high specificity **antibody** systems. Compounds tested included 2-methoxyamphetamine, 4-hydroxymethamphetamine, 2,5-dimethoxyamphetamine (DMA), 4-bromo-2,5-dimethoxyamphetamine (DOB), 4-bromo-2,5-dimethoxy-beta-phenethylamine (BDMPEA), 3,4,5-trimethoxyamphetamine (TMA), 3,4-methylenedioxyamphetamine (MDA), N,N-dimethyl-3,4-methylenedioxyamphetamine and N-hydroxy-3,4-methylenedioxyamphetamine (N-OH MDA), 3,4-methylenedioxymethamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA), 2,5-dimethoxy-4-ethylamphetamine, 2,5-dimethoxy-4-methylamphetamine (DOM), and 3,4,5-trimethoxyphenethylamine (mescaline). Blank negative reference material was spiked with 1,000 to 100,000 ng/mL of the amphetamine analogue and used as sample in the assays. MDA was the only analogue that showed cross reactivity equal to or greater than that of amphetamine. None of the other analogue compounds demonstrated a positive result at even the highest concentration; however several showed depressed counts at various concentration levels.
CT Check Tags: Human
3,4-Methylenedioxyamphetamine: AN, analysis
*Amphetamines: AN, analysis
Cross Reactions
Indicators and Reagents
Iodine Radioisotopes: DU, diagnostic use
Mass Fragmentography
Radioimmunoassay

*Substance Abuse Detection: IS, instrumentation
*Substance-Related Disorders: DI, diagnosis
Substance-Related Disorders: UR, urine
RN **4764-17-4 (3,4-Methylenedioxyamphetamine)**
CN 0 (Amphetamines); 0 (Indicators and Reagents); 0 (Iodine Radioisotopes)

L39 ANSWER 17 OF 51 MEDLINE on STN
AN 88338593 MEDLINE
DN PubMed ID: 3421239
TI Risk factors for HIV infection in male sexual contacts of men with AIDS or an AIDS-related condition.
CM Comment in: Am J Epidemiol. 1989 Sep;130(3):618-9. PubMed ID: 2764008
AU Coates R A; Calzavara L M; Read S E; Fanning M M; Shepherd F A; Klein M H; Johnson J K; Soskolne C L
CS Department of Preventive Medicine and Biostatistics, Faculty of Medicine, University of Toronto, Ontario, Canada.
SO American journal of epidemiology, (1988 Oct) 128 (4) 729-39.
Journal code: 7910653. ISSN: 0002-9262.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 198810
ED Entered STN: 19900308
Last Updated on STN: 19970203
Entered Medline: 19881018
AB A total of 246 healthy male sexual contacts of men with either acquired immunodeficiency syndrome (AIDS) or an AIDS-related condition were recruited into a prospective study in Toronto, Canada between July 1984 and July 1985. At induction, data were collected on the sexual relationship between the contact and his primary case, sexual activities with other men, history of sexually transmitted diseases and other diseases, and use of recreational drugs. At recruitment, 144 sexual contacts had **antibodies** to human immunodeficiency virus (HIV); 102 of the contacts were seronegative at induction and at three months following recruitment. No association between HIV seropositivity and total number of sexual partners could be demonstrated. In univariate and multivariate analyses, receptive and insertive anal intercourse with the primary cases, and activities which either indicated or potentially caused anorectal mucosal injury (rectal douching, perianal bleeding, receipt of objects in ano, and receptive fisting) were strongly associated with HIV seropositivity. In the final multiple logistic regression model, two significant interaction effects were observed: the interaction between receptive anal intercourse and insertive anal intercourse and that between receptive anal intercourse and the anorectal mucosal injury index. These two interaction terms had negative regression coefficients which suggested that change in one sexual activity would not decrementally reduce risk of HIV infection without a comparable modification in the other activity. No association could be demonstrated between oral-genital and oral-anal sexual contact and odds ratios for these sexual activities declined to levels below 1.0 when adjusted for frequency of receptive anal intercourse.
CT Check Tags: Human; Male; Support, Non-U.S. Gov't
3,4-Methylenedioxyamphetamine: AE, adverse effects
*Acquired Immunodeficiency Syndrome: ET, etiology
Acquired Immunodeficiency Syndrome: TM, transmission
Adult
*HIV Seropositivity: ET, etiology
HIV Seropositivity: TM, transmission

Homosexuality
Questionnaires
Risk Factors
*Sexual Behavior
*Sexual Partners
RN **4764-17-4 (3,4-Methylenedioxyamphetamine)**

L39 ANSWER 18 OF 51 EMBASE
on STN DUPLICATE 6
AN 1998418639 EMBASE
TI Screening for urinary amphetamine and analogs by capillary electrophoretic immunoassays and confirmation by capillary electrophoresis with on-column multiwavelength absorbance detection.
AU Ramseier A.; Caslavska J.; Thormann W.
CS Dr. W. Thormann, Department of Clinical Pharmacology, Murtenstrasse 35, CH-3010 Bern, Switzerland. wolfgang.thormann@ikp.unibe.ch
SO Electrophoresis, (1998) 19/16-17 (2956-2966).
Refs: 34
ISSN: 0173-0835 CODEN: ELCTDN
CY Germany
DT Journal; Conference Article
FS 027 Biophysics, Bioengineering and Medical Instrumentation
030 Pharmacology
037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
LA English
SL English
AB This paper characterizes competitive binding, electrokinetic capillary-based immunoassays for screening of urinary amphetamine (A) and analogs using reagents which were commercialized for a fluorescence polarization immunoassay (FPIA). After incubation of 25 μL urine with the reactants, a small aliquot of the mixture is applied onto a fused-silica capillary and unbound fluorescein-labeled tracer compounds are monitored by capillary electrophoresis with on-column laser-induced fluorescence detection. Configurations in presence and absence of micelles were investigated and found to be capable of recognizing urinary D-(+)amphetamine at concentrations > about 80 ng/mL. Similar responses were obtained for racemic methamphetamine (MA) and 3,4-methylenedioxymethamphetamine (MDMA). The electrokinetic immunoassay data suggest that the FPIA reagent kit includes two immunoassay systems (two **antibodies** and two tracer molecules), one that recognizes MA and MDMA, and one that is geared towards monitoring of A. For confirmation analysis of urinary amphetamines and ephedrines, capillary electrophoresis in a pH 9.2 buffer and multiwavelength UV detection was employed. The suitability of the electrokinetic methods for screening and confirmation is demonstrated via analysis of patient and external quality control urines.
CT Medical Descriptors:
*drug determination
*drug urine level
capillary electrophoresis
immunoassay
pH
micelle
quality control
drug isolation
human
controlled study
conference paper

Drug Descriptors:
*amphetamine: AN, drug analysis
*amphetamine: CR, drug concentration
*methamphetamine: AN, drug analysis
*methamphetamine: CR, drug concentration
*3,4 methylenedioxymethamphetamine: AN, drug analysis
*3,4 methylenedioxymethamphetamine: CR, drug concentration
fluorescein
ephedrine derivative
buffer

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (fluorescein) 2321-07-5, 91316-42-6

NP (1) P/ACE 5510; (2) BioFocus 3000

CO (1) Beckman (United States) ; (2) Biorad (United States)

L39 ANSWER 19 OF 51 EMBASE
on STN DUPLICATE 8

AN 96349235 EMBASE

DN 1996349235

TI Chromophore-assisted laser inactivation of even skipped in Drosophila precisely phenocopies genetic loss of function.

AU Schroder R.; Tautz D.; Jay D.G.

CS Dept. Molecular Cellular Biology, Harvard University,Cambridge, MA 02138, United States

SO Development Genes and Evolution, (1996) 206/1 (86-88).
ISSN: 0949-944X CODEN: DGEVFT

CY Germany

DT Journal; Article

FS 021 Developmental Biology and Teratology
022 Human Genetics

LA English

SL English

AB The even skipped (eve) gene in Drosophila encodes a homeo-domain protein that acts as a trancriptional regulator during early embryogenesis. We show that an injection of a monoclonal **antibody** against the **eve** homeodomain in conjunction with chromophore-assisted laser inactivation (CALI) precisely phenocopies the eve mutant phenotype. Depending on the time of the laser treatment, both the early pair-rule function, as well as the later segmental function of eve can be blocked. This suggests that it might be possible to employ CALI to analyse the function of transcriptional regulators in species that are not amenable to genetic analysis.

CT Medical Descriptors:
*chromatophore
*gene repression
*homeobox
animal experiment
animal tissue
article
controlled study
drosophila
embryo
embryo development
laser
mutant
nonhuman
phenotype

priority journal
Drug Descriptors:
homeodomain protein
monoclonal antibody
transcription factor

L39 ANSWER 20 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2004266786 EMBASE
TI 3,4-Methylenedioxymethamphetamine increases interleukin-1β levels and activates microglia in rat brain: Studies on the relationship with acute hyperthermia and 5-HT depletion.
AU Orio L.; O'Shea E.; Sanchez V.; Pradillo J.M.; Escobedo I.; Camarero J.; Moro M.A.; Green A.R.; Colado M.I.
CS M.I. Colado, Departamento de Farmacologia, Facultad de Medicina, Universidad Complutense, Madrid 28040, Spain. colado@med.ucm.es
SO Journal of Neurochemistry, (2004) 89/6 (1445-1453).
Refs: 52
ISSN: 0022-3042 CODEN: JONRA
CY United Kingdom
DT Journal; Article
FS 008 Neurology and Neurosurgery
037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
052 Toxicology
LA English
SL English
AB 3,4-Methylenedioxymethamphetamine (MDMA) administration to rats produces acute hyperthermia and 5-HT release. Interleukin-1β (IL-1β) is a pro-inflammatory pyrogen produced by activated microglia in the brain. We examined the effect of a neurotoxic dose of MDMA on IL-1β concentration and glial activation and their relationship with acute hyperthermia and 5-HT depletion. MDMA, given to rats housed at 22°C, increased IL-1β levels in hypothalamus and cortex from 1 to 6 h and [(3)H]-(1-(2-chlorophenyl) -N-methyl-N-(1-methylpropyl)3-isoquinolinecarboxamide) binding between 3 and 48 h. Increased immunoreactivity to OX-42 was also detected. Rats became hyperthermic immediately after MDMA and up to at least 12 h later. The IL-1 receptor antagonist did not modify MDMA-induced hyperthermia indicating that IL-1β release is a consequence, not the cause, of the rise in body temperature. When MDMA was given to rats housed at 4°C, hyperthermia was abolished and the IL-1β increase significantly reduced. The MDMA-induced acute 5-HT depletion was prevented by fluoxetine coadministration but the IL-1β increase and hyperthermia were unaffected. Therefore, the rise in IL-1β is not related to the acute 5-HT release but is linked to the hyperthermia. Contrary to IL-1β levels, microglial activation is not significantly modified when hyperthermia is prevented, suggesting that it might be a process not dependent on the hyperthermic response induced by MDMA.
CT Medical Descriptors:
*hyperthermia
*serotonin release
*neurotoxicity
*microglia
cytokine release
inflammation
hypothalamus
brain cortex
nonhuman

male
rat
animal experiment
animal model
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*interleukin 1beta: EC, endogenous compound
*3,4 methylenedioxymethamphetamine: TO, drug toxicity
*3,4 methylenedioxymethamphetamine: PD, pharmacology
*3,4 methylenedioxymethamphetamine: IP, intraperitoneal drug administration
*serotonin: EC, endogenous compound
pyrogen: EC, endogenous compound
n sec butyl 1 (2 chlorophenyl) n methyl 3 isoquinolinecarboxamide
ox 42
monoclonal antibody
cell marker
CD11b antigen
interleukin 1 receptor blocking agent: CV, intracerebroventricular drug administration
fluoxetine: IP, intraperitoneal drug administration
glial fibrillary acidic protein: EC, endogenous compound
unclassified drug

RN (3,4 methylenedioxymethamphetamine) **42542-10-9**; (serotonin) 50-67-9; (n sec butyl 1 (2 chlorophenyl) n methyl 3 isoquinolinecarboxamide) 85532-75-8; (fluoxetine) 54910-89-3, 56296-78-7, 59333-67-4
CN 'ecstasy'; Pk 11195
CO Amgen (United States); Nida (United States); Lilly (Spain)

L39 ANSWER 21 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2003337130 EMBASE
TI Enkephalin contributes to the locomotor stimulating effects of 3,4-methylenedioxy-N-methylamphetamine.
AU Compan V.; Scearce-Levie K.; Crosson C.; Daszuta A.; Hen R.
CS Dr. V. Compan, Lab. de Genomique Fonct., CNRS, Marseille, United States. Valerie.Compan@ccipe.cnrs.fr
SO European Journal of Neuroscience, (2003) 18/2 (383-390).
Refs: 64
ISSN: 0953-816X CODEN: EJONEI
CY United Kingdom
DT Journal; Article
FS 008 Neurology and Neurosurgery
040 Drug Dependence, Alcohol Abuse and Alcoholism
LA English
SL English
AB 3,4-Methylenedioxy-N-methylamphetamine (MDMA, 'Ecstasy') is a potent inhibitor of serotonin uptake, which induces both an increase in locomotion and a decrease in exploratory activity in rodents. Serotonin 5-HT(1B) receptors, located on the terminals of striatal efferent neurons, have been suggested to mediate these motor effects of MDMA. Striatal neurons projecting to the globus pallidus contain metenkephalin, whilst those projecting to the substantia nigra contain substance P. We therefore analysed the levels of both peptides using radioimmunocytochemistry after MDMA administration (10 mg/kg, 3 h) in wild-type and 5-HT(1B) receptor

knockout mice. Our results demonstrate that MDMA induces a decrease in pallidal met-enkephalin immunolabelling in wild-type, but not in 5-HT(1B) receptor knockout mice. Similar results were obtained following treatment with the 5-HT (1A/1B) agonist RU24969 (5 mg/kg, 3 h), suggesting that activation of 5-HT(1B) receptors leads to a reduction in met-enkephalin levels in the globus pallidus. In contrast, MDMA had no effect on the nigral substance P levels. We have previously shown that both MDMA and RU24969 fail to stimulate locomotor activity in 5-HT(1B) receptor knockout mice. Our present data indicate that the opioid antagonist naloxone suppressed the locomotor effects of MDMA. This study is the first to demonstrate that Enk contributes to MDMA-induced increases in locomotor activity. Such an effect may be related to the 5-HT control of pallidal met-enkephalin levels via the 5-HT(1B) receptors.

CT Medical Descriptors:
*locomotion
exploratory behavior
animal behavior
stria terminalis
efferent nerve
globus pallidus
peptide analysis
immunocytochemistry
wild type
knockout mouse
antibody labeling
substantia nigra
nonhuman
mouse
animal experiment
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*enkephalin derivative: EC, endogenous compound
*3,4 methylenedioxymethamphetamine
serotonin uptake inhibitor
serotonin 1B receptor: EC, endogenous compound
metenkephalin: EC, endogenous compound
substance P: EC, endogenous compound
serotonin 1A agonist
serotonin 1B agonist
5 methoxy 3 (1,2,3,6 tetrahydro 4 pyridyl) 1h indole
opiate antagonist
naloxone

RN (3,4 methylenedioxymethamphetamine) **42542-10-9**; (metenkephalin) 58569-55-4; (substance P) 33507-63-0; (5 methoxy 3 (1,2,3,6 tetrahydro 4 pyridyl) 1h indole) 66611-26-5; (naloxone) 357-08-4, 465-65-6

L39 ANSWER 22 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 2003142445 EMBASE

TI Bone sialoprotein promotes tumor cell migration in both in vitro and in vitro models.

AU Chen J.; Rodriguez J.A.; Barnett B.; Hashimoto N.; Tang J.

CS J.J. Chen, Department of Pediatric Dentistry, Univ. of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States. Chenj2@uthscsa.edu

SO Connective Tissue Research, (2003) 44/SUPPL. 1 (279-284).

Refs: 23
ISSN: 0300-8207 CODEN: CVTRBC
CY United Kingdom
DT Journal; Article
FS 005 General Pathology and Pathological Anatomy
016 Cancer
LA English
SL English
AB The present study was conducted to determine the effects of bone sialoprotein (BSP) in promoting vascular invasion of tumor cells in metastasis. We used a Matrigel system and the MDA-231 human breast cancer cells transfected with human BSP cDNA (MDA-231/BSP). Quantative analysis indicated an average of 1.7-fold increase in cell numbers that migrated through the endothelial cells in MDA-231/BSP cells compared with empty vector-transfected MDA-231 cells (MDA-231/EV). In an in vivo assay, the MDA-231 cells were incubated with or without BSP **antibodies** and were then inoculated onto the upper chorioallantoic membrane (CAM) of chicken embryos, in which the only route for the tumor cells to reach the lower CAM was to migrate through the embryonic vasculature. PCR amplification using human Alu primers and genomic DNA from harvested lower CAM showed an average reduction of 67% in the samples treated with BSP **antibodies.** These preliminary data suggest that, in metastasis, BSP may enhance the penetrating ability of tumor cells through endothelial cells and basement membrane into blood vessels. BSP **antibodies** can specifically hinder this effect in an in vivo system.
CT Medical Descriptors:
*breast cancer: ET, etiology
*cancer cell
*metastasis
protein function
cell migration
in vitro study
in vivo study
cancer invasion
blood vessel
genetic transfection
quantitative analysis
cell count
endothelium cell
incubation time
inoculation
chorioallantois
chicken
vascularization
polymerase chain reaction
cell membrane potential
basement membrane
human
controlled study
human cell
article
nucleotide sequence
Drug Descriptors:
*sialoprotein: EC, endogenous compound
matrigel
3,4 methylenedioxyamphetamine
complementary DNA: EC, endogenous compound
protein antibody
primer DNA

genomic DNA
RN (matrigel) 119978-18-6; (3,4 methylenedioxyamphetamine) **4764-17-4**
GEN GENBANK J05213 referred number

L39 ANSWER 23 OF 51 EMBASE
on STN
AN 2003337524 EMBASE
TI Evaluation of immunoassays for the determination of MDMA and cannabinoids in urine samples.
AU Lua A.C.; Hu A.-R.; Lin B.-F.; Yeh P.-C.; Lin H.-R.; Tseng Y.-T.
CS A.C. Lua, Department of Medical Technology, Tzu Chi University, 701 Section 3, Chung Yan Road, Hualien, Taiwan 970, China.
ahai@mail.tcu.edu.tw
SO Journal of Food and Drug Analysis, (2003) 11/2 (108-113).
Refs: 28
ISSN: 1021-9498 CODEN: YSFEEP
CY Taiwan,Province of China
DT Journal; Article
FS 027 Biophysics, Bioengineering and Medical Instrumentation
032 Psychiatry
037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
049 Forensic Science Abstracts
LA English
SL English
AB Methylenedioxymethamphetamine (MDMA) is structurally related to methamphetamine (MA). There are many different commercially available immunoassay (IA) reagents for the initial screening of amphetamine and/or methamphetamine. These reagents may be employed to detect MDA/MDMA in urine samples. In order to select a suitable reagent for the initial screening of MDMA in urine samples, we evaluated 7 different amphetamine immunoassay reagents: Emit d.a.u. Monoclonal Amphetamine/Methamphetamine; Emit II Plus Monoclonal Amphetamine/Methamphetamine; Emit d.a.u. Amphetamine Class; DRI Amphetamine; AxSYM Amphetamine/Methamphetamine II; Abuscreen Online Amphetamine and Cedia Amphetamine/Ecstasy. We also determined the cross reactivity of these reagents with MDA, MDMA, MBDB, MDEA and other phenethylamines. These IA reagents were employed to screen a group of 146 urine samples collected from pub patrons. Results of the initial screening were compared with results obtained with gas chromatography/mass spectrometry (GC/MS). Five of the IA assays were acceptable for the initial screening of MDMA, except the Emit II Plus Monoclonal Amphetamine/Methamphetamine reagent and Emit d.a.u. Class Amphetamine reagent. Results obtained with Emit II reagent showed high false negatives, while results obtained with Emit d.a.u. Class reagent showed high false positives. We evaluated 5 different IA for cannabinoids. Results of the initial screening of 74 urine samples collected from pub patrons were compared with results obtained by GC/MS. There are 12 confirmed positives with GC/MS. Results obtained with DRI reagent showed no false negatives, while results obtained with Emit, Abuscreen Online, AxSYM and Cedia reagents have 4, 2, 3 and 4 false negatives, respectively.
CT Medical Descriptors:
*immunoassay
*urinalysis
screening
enzyme multiplied immunoassay technique
cross reaction
intermethod comparison
gas chromatography
mass spectrometry

laboratory diagnosis
human
controlled study
article
Drug Descriptors:
*3,4 methylenedioxymethamphetamine
*cannabinoid
methamphetamine
reagent
amphetamine
3,4 methylenedioxyamphetamine
monoclonal antibody
amphetamine derivative
n methyl 1 (3,4 methylenedioxyphenyl) 2 butanamine
n ethyl 3,4 methylenedioxyamphetamine
phenethylamine derivative
adrenergic receptor stimulating agent
central stimulant agent
designer drug
unclassified drug

RN (3,4 methylenedioxymethamphetamine) **42542-10-9**; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxyamphetamine) **4764-17-4**; (n ethyl 3,4 methylenedioxyamphetamine) **14089-52-2**

NP (1) Emit-P; (2) Emit II; (3) Emit-M; (4) DRI Amphetamine; (5) AxSym; (6) Abuscreen Online Amphetamine; (7) Cedia

CO (3) Syva; (4) Synchron System; (5) Abbott; (6) Hoffmann La Roche; (7) Microgenics

L39 ANSWER 24 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 2003447906 EMBASE

TI Drug addictions: Towards socially accepted and medically treatable diseases.

AU Pouletty P.

CS P. Pouletty, DrugAbuse Sciences, 25954 Eden Landing Road, Hayward, CA 94545-3816, United States. philippe@truffle-venture.com

SO Nature Reviews Drug Discovery, (2002) 1/9 (731-736).
Refs: 63
ISSN: 1474-1776 CODEN: NRDDAG

CY United Kingdom

DT Journal; Article

FS 036 Health Policy, Economics and Management
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
040 Drug Dependence, Alcohol Abuse and Alcoholism
052 Toxicology

LA English

SL English

AB What is the disease that affects more than 30 million individuals in the United States and Europe, is a leading cause of death and costs 2-3.5% of gross domestic product? The answer - alcohol abuse and drug addictions - still surprises many, and in general, addictions are undertreated. But advances in the understanding of the underlying biology and clinical manifestations of addictions are creating new opportunities for the development of novel pharmacotherapies to complement psychosocial interventions.

CT Medical Descriptors:
*drug dependence: DM, disease management
*drug dependence: DT, drug therapy
*drug dependence: ET, etiology
United States
cause of death
health care cost
alcohol abuse
pathology
clinical feature
psychosocial care
drug dependence treatment
drug mechanism
drug efficacy
cost effectiveness analysis
drug formulation
drug delivery system
side effect: SI, side effect
human
clinical trial
article
priority journal
Drug Descriptors:
alcohol
psychedelic agent
phencyclidine
cocaine
diamorphine: DT, drug therapy
diamorphine: PD, pharmacology
3,4 methylenedioxymethamphetamine
opiate
naltrexone: CT, clinical trial
naltrexone: DT, drug therapy
naltrexone: PR, pharmaceutics
naltrexone: PD, pharmacology
naltrexone: IM, intramuscular drug administration
naltrexone: PO, oral drug administration
acamprosate: CT, clinical trial
acamprosate: DT, drug therapy
acamprosate: PD, pharmacology
levacetylmethadol: DT, drug therapy
levacetylmethadol: PD, pharmacology
disulfiram: AE, adverse drug reaction
disulfiram: DT, drug therapy
disulfiram: PD, pharmacology
buprenorphine: CT, clinical trial
buprenorphine: CB, drug combination
buprenorphine: DT, drug therapy
buprenorphine: PD, pharmacology
methadone: DT, drug therapy
methadone: PD, pharmacology
adrogolide: CT, clinical trial
adrogolide: DT, drug therapy
adrogolide: PD, pharmacology
naloxone: CT, clinical trial
naloxone: CB, drug combination
naloxone: DT, drug therapy
naloxone: PD, pharmacology
drugs used in the treatment of addiction: CT, clinical trial

drugs used in the treatment of addiction: DV, drug development
drugs used in the treatment of addiction: DT, drug therapy
drugs used in the treatment of addiction: PE, pharmacoeconomics
ns 2359: CT, clinical trial
ns 2359: DT, drug therapy
ns 2359: PD, pharmacology
rpr 102681: CT, clinical trial
rpr 102681: DV, drug development
rpr 102681: DT, drug therapy
rpr 102681: PD, pharmacology
nicotine vaccine: DV, drug development
bp 897: CT, clinical trial
bp 897: DV, drug development
bp 897: DT, drug therapy
bp 897: PD, pharmacology
vigabatrin: DV, drug development
vigabatrin: PD, pharmacology
risperidone: DV, drug development
risperidone: PD, pharmacology
dexamphetamine: DV, drug development
dexamphetamine: PD, pharmacology
isradipine: DV, drug development
isradipine: PD, pharmacology
haloperidol: DV, drug development
haloperidol: PD, pharmacology
monoclonal antibody: DV, drug development
polyclonal antibody: DV, drug development
digoxin antibody
venom antiserum
unindexed drug
unclassified drug
diaphin
vivitrex
suboxone
berger

RN (alcohol) 64-17-5; (phencyclidine) 77-10-1, 956-90-1; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (diamorphine) 1502-95-0, 561-27-3; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (naltrexone) 16590-41-3, 16676-29-2; (acamprosate) 77337-73-6; (levacetylmethadol) 34433-66-4; (disulfiram) 97-77-8; (buprenorphine) 52485-79-7, 53152-21-9; (methadone) 1095-90-5, 125-56-4, 23142-53-2, 297-88-1, 76-99-3; (adrogolide) 166591-11-3; (naloxone) 357-08-4, 465-65-6; (vigabatrin) 60643-86-9; (risperidone) 106266-06-2; (dexamphetamine) 1462-73-3, 51-63-8, 51-64-9; (isradipine) 75695-93-1, 88977-22-4; (haloperidol) 52-86-8

CN (1) Campral; (2) Diaphin; (3) Campral; (4) Vivitrex; (5) Das 431; (6) Ns 2359; (7) Suboxone; (8) Suboxone; (9) Rpr 102681; (10) Bp 897; (11) Risperdal; (12) Dexedrine; (13) Dynacirc; (14) Haldol; Revia; Trexan; Antabuse; Berger

CO (1) Merck Lipha; (2) Diamo narcotics; (3) Forrest; (4) Alkermes; (5) DrugAbuse Sciences; (6) Neurosearch; (7) Reckitt Benckiser; (8) Schering Plough; (9) Aventis; (10) Bioproject; (11) Janssen; (12) Glaxo SmithKline; (13) Reliant; (14) Ortho Mcneil; Bristol Myers Squibb; Eon; Mallinckrodt; Mylan; Roxane; Odyssey; Watson; Eron; Barr Laboratories; Amide

L39 ANSWER 25 OF 51 EMBASE
on STN
AN 2002391619 EMBASE
TI Poisoning in children 5: Rare and dangerous poisons.

AU Riordan M.; Rylance G.; Berry K.
CS Dr. K. Berry, Emergency Department, Birmingham Children's Hospital, Steelhouse Lane, Birmingham B4 6NH, United Kingdom. kathleen.berry@bhamchildrens.wmids.nhs.uk
SO Archives of Disease in Childhood, (1 Nov 2002) 87/5 (407-410).
Refs: 21
ISSN: 0003-9888 CODEN: ADCHAK
CY United Kingdom
DT Journal; Conference Article
FS 007 Pediatrics and Pediatric Surgery
037 Drug Literature Index
038 Adverse Reactions Titles
052 Toxicology
LA English
SL English
AB Management of children who have ingested βblockers, digoxin, oral hypoglycaemics, organophosphates, carbon monoxide, cyanide, isopropanol, ethylene glycol, methanol, Ecstasy, LSD, cocaine, nicotine, and isoniazid.
CT Medical Descriptors:
*intoxication: DT, drug therapy
*intoxication: EP, epidemiology
*childhood injury: DT, drug therapy
*childhood injury: EP, epidemiology
beta adrenergic receptor blocking
hypoglycemia
drug effect
drug mechanism
bradycardia
hypotension
nausea
vomiting
hyperkalemia
heart arrhythmia
insect control
risk assessment
metabolic acidosis
cyanide poisoning
household
drug abuse
methemoglobinemia: SI, side effect
headache: SI, side effect
vasodilatation
muscle cramp: SI, side effect
arthralgia: SI, side effect
anaphylaxis: SI, side effect
human
child
conference paper
priority journal
Drug Descriptors:
*beta adrenergic receptor blocking agent: TO, drug toxicity
*digoxin: TO, drug toxicity
*oral antidiabetic agent: TO, drug toxicity
*organophosphate insecticide: TO, drug toxicity
*carbon monoxide: TO, drug toxicity
*cyanide: TO, drug toxicity
2 propanol: TO, drug toxicity
ethylene glycol: TO, drug toxicity
methanol: TO, drug toxicity

3,4 methylenedioxymethamphetamine: TO, drug toxicity
lysergide: TO, drug toxicity
cocaine: TO, drug toxicity
nicotine: TO, drug toxicity
isoniazid: TO, drug toxicity
activated carbon: PD, pharmacology
atropine: DT, drug therapy
lidocaine: DT, drug therapy
amiodarone: DT, drug therapy
phenytoin: DT, drug therapy
digoxin antibody: DT, drug therapy
sulfonylurea derivative: TO, drug toxicity
octreotide: TO, drug toxicity
metformin: TO, drug toxicity
acarbose: TO, drug toxicity
repaglinide: TO, drug toxicity
glucose: DT, drug therapy
glucose: PD, pharmacology
pralidoxime: DT, drug therapy
amyl nitrite: AE, adverse drug reaction
amyl nitrite: DT, drug therapy
sodium thiosulfate: AE, adverse drug reaction
sodium thiosulfate: DT, drug therapy
unindexed drug

RN (digoxin) 20830-75-5, 57285-89-9; (carbon monoxide) 630-08-0; (cyanide) 57-12-5; (2 propanol) 67-63-0; (ethylene glycol) 107-21-1; (methanol) 67-56-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (lysergide) 50-37-3; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (nicotine) 54-11-5; (isoniazid) 54-85-3, 62229-51-0, 65979-32-0; (activated carbon) 64365-11-3, 82228-96-4; (atropine) 51-55-8, 55-48-1; (lidocaine) 137-58-6, 24847-67-4, 56934-02-2, 73-78-9; (amiodarone) 1951-25-3, 19774-82-4, 62067-87-2; (phenytoin) 57-41-0, 630-93-3; (octreotide) 83150-76-9; (metformin) 1115-70-4, 657-24-9; (acarbose) 56180-94-0; (repaglinide) 135062-02-1; (glucose) 50-99-7, 84778-64-3; (pralidoxime) 6735-59-7; (amyl nitrite) 463-04-7; (sodium thiosulfate) 10102-17-7, 7772-98-7, 8052-33-3

L39 ANSWER 26 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2002200339 EMBASE
TI Single LDL apheresis improves serum remnant-like particle-cholesterol, C-reactive protein, and malondialdehyde-modified-low-density lipoprotein concentrations in Japanese hypercholesterolemic subjects.
AU Kobayashi J.; Katsube S.; Shimoda M.; Furuhashi K.; Kitano S.; Masuda M.; Maruyama T.; Shinomiya M.
CS J. Kobayashi, Department of Internal Medicine, Chibaken Saiseikai Narashino Hosp., 1-1-1 Izumi Chou, Narashino, Chiba 275-0006, Japan. maryland95@angel.ne.jp
SO Clinica Chimica Acta, (2002) 321/1-2 (107-112).
Refs: 34
ISSN: 0009-8981 CODEN: CCATAR
PUI S 0009-8981(02)00103-1
CY Netherlands
DT Journal; Article
FS 003 Endocrinology
025 Hematology
029 Clinical Biochemistry
LA English
SL English
AB Background: Single low-density lipoprotein (LDL)-apheresis may affect

serum remnant-like particle-cholesterol (RLP-C), C-reactive protein (CRP) and malondialdehyde-modified (MDA)-LDL concentrations. Subjects and methods: Six subjects with hypercholesterolemia (five men, one woman) were involved in this study. Mean age and body mass index of the study subjects were 58±3.1 years and 23.6±2.07 kg/m(2), respectively. Five of the subjects were diagnosed as heterozygous familial hypercholesterolemia (FH) because of having both marked hypercholesterolemia and Achilles tendon xanthomas. LDL apheresis was introduced and continued using a dextran sulfate cellulose adsorption column technique every 2 weeks. Serum RLP-C was measured using an immunoaffinity mixed gel containing anti-apolipoprotein A-I and anti-apolipoprotein B monoclonal **antibody.** Serum CRP was measured by latex-enhanced assay. Serum MDA-LDL was measured using monoclonal **antibody** against MDA-LDL (ML25). Results: Combined treatment in the steady state pre-treatment yielded a total, LDL- and HDL-cholesterol, and TG concentrations of 5.39±0.81, 3.82±1.03, 1.24±0.29 and 0.92±0.43 mmol/l, respectively, and a post-treatment total, LDL- and HDL-cholesterol and TG concentrations of 2.79±0.37 (-48%, p<0.001), 1.63±0.29 (-57%, p<0.001), 1.18±0.26 (-5%, NS) and 0.23±0.11 mmol/l (-75%, p<0.001), respectively. Serum RLP-C and CRP concentrations showed a substantial reduction [-73%, p<0.05 for RLP-C; -56%, p<0.05 for CRP] during this procedure. In addition, LDL apheresis was found to also cause a marked reduction in serum MDA-LDL concentration (-61%, p<0.05). Conclusion: LDL-apheresis is an effective treatment for removing atherogenic factors RLP-C, CRP and MDA-LDL from sera. .COPYRGT. 2002 Published by Elsevier Science B.V.

CT Medical Descriptors:
*familial hypercholesterolemia: DI, diagnosis
Japan
concentration response
body mass
heterozygosity
apheresis
achilles tendon
antibody affinity
adsorption chromatography
reversed phase liquid chromatography
bioassay
steady state
reduction
diagnostic procedure
serum
human
male
female
clinical article
controlled study
adult
article
priority journal
Drug Descriptors:
*low density lipoprotein: EC, endogenous compound
*C reactive protein: EC, endogenous compound
*malonaldehyde
dextran sulfate
cellulose: EC, endogenous compound
latex
monoclonal antibody: EC, endogenous compound
3,4 methylenedioxyamphetamine

high density lipoprotein cholesterol: EC, endogenous compound
apolipoprotein A1: EC, endogenous compound
apolipoprotein B: EC, endogenous compound
RN (C reactive protein) 9007-41-4; (malonaldehyde) 542-78-9; (dextran sulfate) 9011-18-1, 9042-14-2; (cellulose) 61991-22-8, 68073-05-2, 9004-34-6; (3,4 methylenedioxyamphetamine) **4764-17-4**

L39 ANSWER 27 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2002305501 EMBASE
TI Normal breast epithelial cells induce apoptosis of breast cancer cells via Fas signaling.
AU Toillon R.-A.; Descamps S.; Adriaenssens E.; Ricort J.-M.; Bernard D.; Boilly B.; Le Bourhis X.
CS X. Le Bourhis, Lab. Biol. du Dev. (UPRES, EA 1033), SN3, Universite Sci./Technologies Lille, 59655 Villeneuve d'Ascq, Cedex, France. xuefen.lebourhis@univ-lille1.fr
SO Experimental Cell Research, (2002) 275/1 (31-43).
Refs: 53
ISSN: 0014-4827 CODEN: ECREAL
CY United States
DT Journal; Article
FS 016 Cancer
029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English
AB Fas/Fas ligand (Fas L) death pathway is an important mediator of apoptosis. Deregulation of Fas pathway is reported to be involved in the immune escape of breast cancer and the resistance to anti-cancer drugs. In this study, we demonstrated that conditioned medium by normal breast epithelial cells (NBEC-CM) induced apoptosis of MCF-7 and T-47D Fas-sensitive cells but had no effect on MDA-MB-231 Fas-resistant cells. Inhibition of PI3 kinase or NF-κB by specific inhibitors or transient transfections restored the sensitivity of MDA-MB-231 cells to NBEC-induced apoptosis. Moreover, the constitutive activation of NF-κB was controlled by PI3 kinase because inhibition of PI3 kinase reduced NF-κB activity. Inducible activation of NF-κB rendered MCF-7 cells resistant to NBEC-CM- and Fas agonist **antibody** -triggered apoptosis. Therefore, constitutive or inducible activation of PI3 kinase and/or NF-κB in breast cancer cells rendered them resistant to NBEC-triggered apoptosis. In addition, Fas neutralizing **antibody** and dominant negative Fas abolished NBEC-triggered apoptosis. Western blot and confocal microscopy analysis showed an increase of membrane Fas/Fas L when cells were induced into apoptotis by NBEC-CM. Taken together, these data show that NBEC induced apoptosis in breast cancer cells via Fas signaling. .COPYRGT. 2002 Elsevier Science (USA).
CT Medical Descriptors:
*breast carcinoma
*breast epithelium
*apoptosis
signal transduction
cancer cell
enzyme inhibition
reduction
enzyme activity
Western blotting
confocal microscopy

analytic method
human
controlled study
human cell
article
priority journal
Drug Descriptors:
***Fas antibody: EC, endogenous compound**
3,4 methylenedioxyamphetamine
immunoglobulin enhancer binding protein: EC, endogenous compound
protein kinase: EC, endogenous compound
neutralizing antibody: EC, endogenous compound
2 morpholino 8 phenylchromone
RN (3,4 methylenedioxyamphetamine) **4764-17-4**; (protein kinase) 9026-43-1; (2 morpholino 8 phenylchromone) 154447-36-6
CN Ly 294002

L39 ANSWER 28 OF 51 EMBASE
on STN
AN 2001277834 EMBASE
TI Liver transplantation for ecstasy-induced fulminant hepatic failure.
AU De Carlis L.; De Gasperi A.; Slim A.O.; Giacomoni A.; Corti A.; Mazza E.; Di Benedetto F.; Lauterio A.; Arcieri K.; Maione G.; Rondinara G.F.; Forti D.
CS Dr. L. De Carlis, Divisione Chirurgia Generale, Ospedale Niguarda, 20162 Milan, Italy
SO Transplantation Proceedings, (2001) 33/5 (2743-2744).
Refs: 6
ISSN: 0041-1345 CODEN: TRPPA8
PUI S 0041-1345(01)02176-5
CY United States
DT Journal; Conference Article
FS 026 Immunology, Serology and Transplantation
037 Drug Literature Index
038 Adverse Reactions Titles
048 Gastroenterology
LA English
CT Medical Descriptors:
*liver transplantation
*liver failure: SU, surgery
*liver failure: SI, side effect
graft survival
liver injury: SI, side effect
liver function
graft rejection: PC, prevention
graft rejection: DT, drug therapy
anemia: SI, side effect
brain disease
histopathology
human
female
case report
adolescent
conference paper
priority journal
Drug Descriptors:
*3,4 methylenedioxymethamphetamine: AE, adverse drug reaction
azathioprine: DT, drug therapy
tsukubaenolide: DT, drug therapy

tsukubaenolide: AE, adverse drug reaction
cyclosporin A: DT, drug therapy
steroid: DT, drug therapy
thymocyte antibody: DT, drug therapy
RN (3,4 methylenedioxymethamphetamine) **42542-10-9**; (azathioprine) 446-86-6; (tsukubaenolide) 104987-11-3; (cyclosporin A) 59865-13-3, 63798-73-2
CN Neoral

L39 ANSWER 29 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 2002234390 EMBASE
TI Evolution pattern of auto-**antibodies** against oxidized low-density lipoproteins in renal transplant recipients.
AU Kandoussi A.-M.; Glowacki F.; Duriez P.; Tacquet A.; Fruchart J.-C.; Noel C.
CS A.-M. Kandoussi, Institut Pasteur de Lille, Inserm U 325, POB 245, F-59019 Lille Cedex, France. Abdelmejid.Kandoussi@pasteur-lille.fr
SO Nephron, (2001) 89/3 (303-308).
Refs: 30
ISSN: 0028-2766 CODEN: NPRNAY
CY Switzerland
DT Journal; Article
FS 028 Urology and Nephrology
029 Clinical Biochemistry
LA English
SL English
AB An increased degree of oxidative stress in renal transplant recipients and a possible role of ciclosporin A (Cs-A) immunosuppressive therapy in this process have already been described. However, prospective data using in vivo markers and the influence of Cs-A in the oxidizability of low-density lipoprotein (LDL) are scarce. We aimed at investigating in this prospective study the evolution pattern of auto-**antibodies** directed against malondialdehyde-modified LDL (MDA-LDL) and Cu(2+)-oxidized LDL in 28 stable renal transplant recipients on Cs-A immunosuppressive therapy before and after 3 successive years of renal transplantation. Also, the effect of enrichment of LDL with Cs-A on the susceptibility of LDL to in vitro oxidation was tested. The results showed a significant increase of both auto-**antibody** titres (MDA-LDL and Cu(2+)-oxidized LDL) after 1 year, and the values remained high during the 2nd and the 3rd year following transplantation. The yearly mean relative variations of auto-**antibodies** against MDA-LDL and Cu(2+)-oxidized LDL during the follow-up period were 133, 149, and 137%, and 111, 115, and 117%, respectively. A significant correlation was observed during the 1st year between Cs-A trough blood level and Cu(2+)-oxidized LDL auto-**antibody**: r = 0.04 (p = 0.046). Incorporation of Cs-A into LDL from healthy volunteers showed no changes during the lag phase in comparison with Cs-A-free LDL, indicating that Cs-A had no effect on in vitro LDL oxidizability. Our results suggest that Cs-A may be involved earlier in the LDL oxidation, but the mechanism by which it acts is still unclear. Copyright .COPYRGT. 2001 S. Karger AG, Basel.
CT Medical Descriptors:
*kidney transplantation
molecular evolution
kidney graft
recipient
prospective study
oxidation

immunosuppressive treatment
antibody titer
in vitro study
diagnostic test
diagnostic value
follow up
blood level
volunteer
regulatory mechanism
human
male
female
clinical article
controlled study
adolescent
adult
article
priority journal
Drug Descriptors:
***autoantibody: EC, endogenous compound**
*low density lipoprotein: EC, endogenous compound
3,4 methylenedioxyamphetamine
copper ion: EC, endogenous compound
RN (3,4 methylenedioxyamphetamine) **4764-17-4**

L39 ANSWER 30 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 2000013857 EMBASE
TI Hair analysis by immunological methods from the beginning to 2000.
AU Spiehler V.
CS V. Spiehler, 422 Tustin, Newport Beach, CA 92663, United States
SO Forensic Science International, (2000) 107/1-3 (249-259).
Refs: 24
ISSN: 0379-0738 CODEN: FSINDR
PUI S 0379-0738(99)00168-1
CY Ireland
DT Journal; Conference Article
FS 026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
049 Forensic Science Abstracts
LA English
SL English
AB Immunoassays for hair testing must satisfy three requirements: (1) They must have cross-reactivity with parent drug and lipophilic metabolites actually found in hair (2) they must not experience interference from the dissolved hair matrix and (3) they must be titered for cutoffs appropriate to the drug concentrations found in hair. Because the analytes found in hair after drug use are generally the parent drug or its lipophilic metabolites, immunoassays developed and intended for urine testing are not suitable for hair. Immunoassays whose **antibodies** are bound to a solid support, such as coated-tube radioimmunoassay or coated-plate ELISA tests, experience less matrix interference than those which use other means of separation of bound and free fractions. Homogenous assays are not suitable for hair testing because the hair matrix frequently interferes in the detection of the signal. Historically radioimmunoassays for drugs of abuse were first used for detecting drugs in hair. Currently ELISAs and coated-plate 96 well microplate EIAs are employed for screening hair

digests or extracts for drugs. The optimum cutoffs for immunoassays for drugs in hair should be chosen based on the analyte concentration which produces the fewest false positive or false negative results when applied to tests of hair from known users and non-users of drugs. A hair immunoassay test at these cutoffs should have a sensitivity and specificity of better than 90%. The predictive value of the test will depend on the prevalence of drug use in the tested population. Cutoffs or decision thresholds for immunoassays used for screening for drugs should not be at the limit of detection of the assay because that produces a very large incidence of false positives. Because immunoassays are ligand-binding assays, they have a short range of linearity with low precision at both ends of the range. In the future, immunoassays will continue to be used for screening hair and other matrices for drugs of abuse because they provide rapid, inexpensive automated procedures for separating negative specimens from those which are suspected of containing drugs. For forensic purposes, all positive results must be confirmed by an independent analysis using a procedure based on a different property of the analyte. An immunoassay test should not be confirmed by a second immunoassay test but by a chromatographic test performed on a different dissolved or extracted aliquot of the original specimen.

CT Medical Descriptors:
*hair analysis
*immunoassay
radioimmunoassay
enzyme immunoassay
drug determination
enzyme linked immunosorbent assay
drug screening
body fluid
cross reaction
human
conference paper
priority journal
Drug Descriptors:
*cocaine: AN, drug analysis
*diamorphine: AN, drug analysis
*barbituric acid derivative: AN, drug analysis
*amphetamine: AN, drug analysis
*cannabis: AN, drug analysis
*benzodiazepine derivative: AN, drug analysis
morphine: AN, drug analysis
benzoylecgonine: AN, drug analysis
cyanamide: AN, drug analysis
amphetamine derivative: AN, drug analysis
3,4 methylenedioxymethamphetamine: AN, drug analysis
phentermine: AN, drug analysis
homococaine: AN, drug analysis
oxazepam: AN, drug analysis
butalbital: AN, drug analysis
pseudoephedrine: AN, drug analysis
secobarbital: AN, drug analysis
phenobarbital: AN, drug analysis
temazepam: AN, drug analysis
amobarbital: AN, drug analysis
secbutabarbital: AN, drug analysis
chlordiazepoxide: AN, drug analysis
diazepam: AN, drug analysis
unindexed drug

flunitrazepam: AN, drug analysis
flurazepam: AN, drug analysis
clonazepam: AN, drug analysis
clobazam: AN, drug analysis

RN (cocaine) 50-36-2, 53-21-4, 5937-29-1; (diamorphine) 1502-95-0, 561-27-3; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (cannabis) 8001-45-4, 8063-14-7; (morphine) 52-26-6, 57-27-2; (benzoylecgonine) 519-09-5; (cyanamide) 151-51-9, 420-04-2; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (phentermine) 1197-21-3, 122-09-8; (homococaine) 529-38-4; (oxazepam) 604-75-1; (butalbital) 51005-25-5, 77-26-9; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4; (secobarbital) 309-43-3, 76-73-3; (phenobarbital) 50-06-6, 57-30-7, 8028-68-0; (temazepam) 846-50-4; (amobarbital) 57-43-2, 64-43-7; (secbutabarbital) 125-40-6, 143-81-7; (chlordiazepoxide) 438-41-5, 58-25-3; (diazepam) 439-14-5; (flunitrazepam) 1622-62-4; (flurazepam) 1172-18-5, 17617-23-1; (clonazepam) 1622-61-3; (clobazam) 22316-47-8

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AN 2000414779 EMBASE

TI Protein phosphorylation cascades associated with methamphetamine-induced glial activation.

AU Hebert M.A.; O'Callaghan J.P.

CS Dr. J.P. O'Callaghan, Ctrs. for Dis. Control/Prevention, NIOSH, 1095 Willowdale Road, Morgantown, WV 26505-2888, United States. jdo5@cdc.gov

SO Annals of the New York Academy of Sciences, (2000) 914/- (238-262).
Refs: 179
ISSN: 0077-8923 CODEN: ANYAA

CY United States

DT Journal; Article

FS 008 Neurology and Neurosurgery
029 Clinical Biochemistry
037 Drug Literature Index
052 Toxicology

LA English

SL English

AB Reactive gliosis is the most prominent response to diverse forms of central nervous system (CNS) injury. The signaling events that mediate this characteristic response to neural injury are under intense investigation. Several studies have demonstrated the activation of phosphoproteins within the mitogen-activated protein kinase (MAPK) and Janus kinase (JAK) pathways following neural insult. These signaling pathways may be involved or responsible for the glial response following injury, by virtue of their ability to phosphorylate and dynamically regulate the activity of various transcription factors. This study sought to delineate, in vivo, the relative contribution of MAPK- and JAK-signaling components to reactive gliosis as measured by induction of glialfibrillary acidic protein (GFAP), following chemical-induced neural damage. At time points (6, 24, and 48 h) following methamphetamine (METH, 10 mg/kg x 4, s.c.) administration, female C57BL/6J mice were sacrificed by focused microwave irradiation, a technique that preserves steady-state phosphorylation. Striatal (target) and nontarget (hippocampus) homogenates were assayed for METH-induced changes in markers of dopamine (DA) neuron integrity as well as differences in the levels of activated phosphoproteins. GFAP upregulation occurred as early as 6 h, reaching a threefold induction 48 h following METH exposure. Neurotoxicant-induced reductions in striatal levels of DA and tyrosine hydroxylase (TH) paralleled the temporal profile of GFAP induction. Blots of striatal homogenates, probed with phosphorylation-state specific **antibodies**

, demonstrated significant changes in activated forms of extracellular-regulated kinase 1/2 (ERK 1/2), c-jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK), MAPK/ERK kinase (MEK1/2), 70-kDa ribosomal S6 kinase (p70 S6), cAMP responsive element binding protein (CREB), and signal transducer and activator of transcription 3 (STAT3). MAPK-related phosphoproteins exhibited an activation profile that peaked at 6 h, remained significantly increased at 24, and fell to baseline levels 48 h following neurotoxicant treatment. The ribosomal S6 kinase was enhanced over 60% for all time points examined. Immunoreactivity profiles for the transcription factors CREB and STAT3 indicated maximal increases in phosphorylation occurring at 24 h, and measuring greater than 2- or 17-fold, respectively. Specific signaling events were found to occur with a time course suggestive of their involvement in the gliotic response. The toxicant-induced activation of these growth-associated signaling cascades suggests that these pathways could be obligatory for the triggering and/or persistence of reactive gliosis and may therefore serve as potential targets for modulation of glial response to neural damage.

CT Medical Descriptors:
*neurotoxicity: ET, etiology
*protein phosphorylation
central nervous system
dopaminergic system
enzyme activation
signal transduction
genetic transcription
gliosis
immunoblotting
high performance liquid chromatography
nonhuman
female
mouse
animal experiment
controlled study
animal tissue
article
Drug Descriptors:
*3,4 methylenedioxymethamphetamine: DO, drug dose
*3,4 methylenedioxymethamphetamine: TO, drug toxicity
*3,4 methylenedioxymethamphetamine: SC, subcutaneous drug administration
mitogen activated protein kinase
STAT3 protein
glial fibrillary acidic protein
phosphoprotein
dopamine

RN (3,4 methylenedioxymethamphetamine) **42542-10-9**; (mitogen activated protein kinase) 142243-02-5; (dopamine) 51-61-6, 62-31-7

CO Sigma (United States)

L39 ANSWER 32 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 2000013851 EMBASE

TI Analysis of LSD in human body fluids and hair samples applying ImmunElute columns.

AU Rohrich J.; Zorntlein S.; Becker J.

CS J. Rohrich, Institut fur Rechtsmedizin, Johannes Gutenberg-University, Am Pulverturm 3, D-55131 Mainz, Germany

SO Forensic Science International, (2000) 107/1-3 (181-190).
Refs: 13

ISSN: 0379-0738 CODEN: FSINDR
PUI S 0379-0738(99)00162-0
CY Ireland
DT Journal; Conference Article
FS 026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
049 Forensic Science Abstracts
LA English
SL English
AB Immunoaffinity extraction units (LSD ImmunElute(TM)) are commercially available for the analysis of lysergic acid diethylamide (LSD) in urine. The ImmunElute resin contains immobilized monoclonal **antibodies** to LSD. We applied the ImmunElute procedure to serum and also to human hair samples. For hair analysis the samples were first extracted with methanol under sonication. The extracts were then purified using the ImmunElute resin. LSD analysis was carried out with HPLC and fluorescence detection. The immunoaffinity extraction provides highly purified extracts for chromatographic analysis. The limit of detection (signal-to-noise ratio=3) has been determined to be <50 pg regardless of which sample material was used. The procedure was applied to authentic hair samples from drug abusers (n=11). One of these samples tested positive with an amount of 110 pg LSD in 112 mg extracted hair corresponding to a concentration of 1 pg/mg.
CT Medical Descriptors:
*hair analysis
*body fluid
*drug determination
high performance liquid chromatography
extraction
antibody affinity
analytic method
immunoaffinity chromatography
gas chromatography
mass spectrometry
human
clinical article
human tissue
conference paper
priority journal
Drug Descriptors:
*lysergide: AN, drug analysis
resin
opiate: AN, drug analysis
3,4 methylenedioxyamphetamine: AN, drug analysis
cocaine: AN, drug analysis
amphetamine derivative: AN, drug analysis
dihydrocodeine: AN, drug analysis
amphetamine: AN, drug analysis
3,4 methylenedioxymethamphetamine: AN, drug analysis
morphine: AN, drug analysis
codeine: AN, drug analysis
diamorphine: AN, drug analysis
RN (lysergide) 50-37-3; (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (3,4 methylenedioxyamphetamine) **4764-17-4**; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (dihydrocodeine) 125-28-0, 24204-13-5, 5965-13-9; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**

; (morphine) 52-26-6, 57-27-2; (codeine) 76-57-3; (diamorphine) 1502-95-0, 561-27-3
NP LSD ImmunElute

L39 ANSWER 33 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 1998397605 EMBASE
TI Validation of an automated microplate enzyme immunoassay for screening of postmortem blood for drugs of abuse.
AU Spiehler V.R.; Collison I.B.; Sedgwick P.R.; Perez S.L.; Le S.D.; Farnin D.A.
CS V.R. Spiehler, Spiehler and Associates, Newport Beach, CA, United States
SO Journal of Analytical Toxicology, (1998) 22/7 (573-579).
Refs: 16
ISSN: 0146-4760 CODEN: JATOD3
CY United States
DT Journal; Article
FS 040 Drug Dependence, Alcohol Abuse and Alcoholism
052 Toxicology
LA English
SL English
AB The objective of this study was to compare the sensitivity and specificity of an enzyme immunoassay employing **antibodies** bound to a microtiter plate (MPEIA) with those of two radioimmunoassays for screening postmortem blood from selected coroner's cases for drugs of abuse. The radioimmunoassays were a coated-tube radioimmunoassay (CTRIA) and a double **antibody** radioimmunoassay (DARIA). Specimens consisted of 260 postmortem blood specimens from coroner's cases. Immunoassay results (positive or negative) were compared with confirmed results on those cases by gas chromatography-mass spectrometry, alone or in combination with gas-liquid chromatography using either a nitrogen-phosphorus or flame-ionization detector. Sensitivity was calculated as the true-positive rate using chromatographic confirmation as the reference standard. Specificity was calculated as the true-negative rate. Sensitivity and specificity were calculated for 5-7 potential cutoff concentrations for the drug classes opiates, amphetamines, cocaine and metabolites, and barbiturates. For opiates, the sensitivity and specificity were 99% and 93%, respectively, for the MPEIA at a cutoff of 20-ng/mL morphine, compared with 94% and 96% for the CTRIA at a cutoff of 5-ng/mL morphine and >99% and 96% for the DARIA at 20- ng/mL morphine. For cocaine and metabolites, the sensitivity and specificity were 96% and 93%, respectively, for the MPEIA at 50-ng/mL benzoylecgonine, compared with 93% and 96% for CTRIA at 50-ng/mL benzoylecgonine and 98% and 97% for the DARIA at 50-ng/mL benzoylecgonine. For amphetamines, the sensitivity and specificity were >99% and 91%, respectively, for the MPEIA at 25-ng/mL methamphetamine, compared with 93% and 86% for the CTRIA at 25- ng/mL methamphetamine and 83% and 89% for the DARIA at 50-ng/mL methamphetamine. For barbiturates, the sensitivity and specificity were >99% and 92%, respectively, for the MPEIA at 50-ng/mL secobarbital, compared with 91% and 87% for the CTRIA at 500-ng/mL secobarbital and 79% and 95% for the DARIA at a cutoff of 1000-ng/mL phenobarbital.
CT Medical Descriptors:
*enzyme immunoassay
*drug abuse
antibody detection
validation process
radioimmunoassay
gas chromatography
mass spectrometry

automation
receiver operating characteristic
cross reaction
human
human cell
article
Drug Descriptors:
*opiate: TO, drug toxicity
*cocaine: TO, drug toxicity
*amphetamine: TO, drug toxicity
*barbituric acid derivative: TO, drug toxicity
benzoylecgonine: TO, drug toxicity
methamphetamine: TO, drug toxicity
secobarbital: TO, drug toxicity
phenobarbital: TO, drug toxicity
homococaine: TO, drug toxicity
diamorphine: TO, drug toxicity
3,4 methylenedioxymethamphetamine: TO, drug toxicity
ephedrine: TO, drug toxicity
butalbital: TO, drug toxicity
amobarbital: TO, drug toxicity
pseudoephedrine: TO, drug toxicity
RN (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (benzoylecgonine) 519-09-5; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (secobarbital) 309-43-3, 76-73-3; (phenobarbital) 50-06-6, 57-30-7, 8028-68-0; (homococaine) 529-38-4; (diamorphine) 1502-95-0, 561-27-3; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (ephedrine) 299-42-3, 50-98-6; (butalbital) 51005-25-5, 77-26-9; (amobarbital) 57-43-2, 64-43-7; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4
NP coated tube radioimmunoassay; **double antibody radioimmunoassay**

L39 ANSWER 34 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 1998336098 EMBASE
TI Amphetamines in hair by enzyme-linked immunosorbent assay.
AU Sweeney S.A.; Kelly R.C.; Bourland J.A.; Johnson T.; Brown W.C.; Lee H.; Lewis E.
CS R.C. Kelly, Associated Pathologists Laboratories, 4230 S. Burnham Avenue, Las Vegas, NV 89119, United States
SO Journal of Analytical Toxicology, (1998) 22/6 (418-424).
Refs: 23
ISSN: 0146-4760 CODEN: JATOD3
CY United States
DT Journal; Article
FS 005 General Pathology and Pathological Anatomy
040 Drug Dependence, Alcohol Abuse and Alcoholism
LA English
SL English
AB Human hair was collected from the occipital crown region of the head from several subjects; these hair samples were presumptively positive for amphetamines by a previously evaluated immunoassay. Hair was washed briefly with methanol to remove external contamination, then extracted with hot methanol for 2 h to recover the drugs. The extracts were evaporated to dryness, reconstituted in buffer, and analyzed using a new enzyme-linked immunosorbent assay (ELISA) technique adapted for the detection of amphetamines in hair. Gas chromatography-mass spectrometry was used as the reference technique. Cross-reactivity of several related

compounds was evaluated by equating the inverse of the ligand concentration at 50% **antibody** binding to the affinity constant for each compound. The ratio of a compound's affinity constant to that for d-methamphetamine was used to derive percent cross-reactivity. These experiments yielded values of 30.8% for d- amphetamine, 7.4% for I-methamphetamine, 4.3% for phentermine, 2.9% for/- amphetamine, and <1% for ephedrine, methylenedioxyamphetamine, and methylenedioxymethamphetamine. Cross-reactivity of unrelated compounds was found to be non-existent. The optimum cutoff concentration was determined by receiver operating characteristic curve analysis to be 300 pg/mg and the observed limit of detection was 60 pg/mg. Intra-assay precision at 300 pg/mg was 3.3% (coefficient of variation, CV), and the interassay CV was 10.5%. The sensitivity and specificity of the method were 83% and 92%, respectively.

CT Medical Descriptors:
*hair
*enzyme linked immunosorbent assay
gas chromatography
mass spectrometry
cross reaction
receiver operating characteristic
human
controlled study
human tissue
article
Drug Descriptors:
*amphetamine derivative
*methamphetamine
*dexamphetamine
*amphetamine
*3,4 methylenedioxyamphetamine
methanol
antibody
ligand
phentermine
ephedrine

RN (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (dexamphetamine) 1462-73-3, 51-63-8, 51-64-9; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxyamphetamine) **4764-17-4**; (methanol) 67-56-1; (phentermine) 1197-21-3, 122-09-8; (ephedrine) 299-42-3, 50-98-6

L39 ANSWER 35 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 1999003994 EMBASE

TI Serotonin transporters are located on the axons beyond the synaptic junctions: Anatomical and functional evidence.

AU Zhou F.C.; Tao-Cheng J.-H.; Segu L.; Patel T.; Wang Y.

CS F.C. Zhou, Department of Anatomy, Medical Neurobiology Program, Indiana Univ. School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202, United States. imce100@iupui.edu

SO Brain Research, (14 Sep 1998) 805/1-2 (241-254).
Refs: 72
ISSN: 0006-8993 CODEN: BRREAP

PUI S 0006-8993(98)00691-X

CY Netherlands

DT Journal; Article

FS 001 Anatomy, Anthropology, Embryology and Histology

LA English

SL English
AB The serotonin (5-HT) transporter (5-HTT) is known to play a role in depression and many 5-HT related diseases, and is the target site for drugs of abuse, such as cocaine, MDMA, and methamphetamine. The major role of the 5-HTT has long been considered to be to inactivate serotonin transmission through the elimination of serotonin at release sites. However, immunocytochemistry using an **antibody** against the N-terminal of the 5-HTT at the light microscopic (LM) level indicates that the 5-HTT is associated not only with 5-HT varicosities but also with axons. Electron microscopy (EM) reveals that the majority of the 5-HTTs exist on the axolemma outside the synaptic junctions. In studying whether axonal 5-HTTs are involved in the uptake of 5-HT, we found with autoradiography that [3H]citalopram bound to all major 5-HT fibers, not only in the terminal regions, but also in 5-HT axonal bundles such as the cingulum bundle and medial forebrain bundle. Furthermore, voltammetry recordings indicated that serotonin axonal bundles were actively engaged in high affinity serotonin uptake. The evidence indicates that 5-HTTs on 5-HT axons away from the synapse are likely to be functional in a manner similar to the terminal 5-HTT for serotonin uptake. It also suggests that the role of the 5-HTT may not only be for the termination of synaptic transmission, but also for the regulation of 5-HT through extrasynaptic (volume) transmission. Our findings may also impact the understanding of the sites of action of selective serotonin reuptake inhibitors and drug entry into serotonin neurons via the numerous axonal sites.
CT Medical Descriptors:
*synaptic transmission
*serotonin uptake
*serotoninergic nerve
*anatomy
serotonin release
electron microscopy
cingulate gyrus
medial forebrain bundle
immunocytochemistry
potentiometry
autoradiography
nonhuman
male
rat
animal experiment
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*serotonin transporter: EC, endogenous compound
cocaine
3,4 methylenedioxymethamphetamine
methamphetamine
citalopram
RN (cocaine) 50-36-2, 53-21-4, 5937-29-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (citalopram) 59729-33-8

L39 ANSWER 36 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 97268302 EMBASE
DN 1997268302
TI Brain serotonin neurotoxicity and primary pulmonary hypertension from

fenfluramine and dexfenfluramine: A systematic review of the evidence.
AU McCann U.D.; Seiden L.S.; Rubin L.J.; Ricaurte G.A.
CS Dr. U.D. McCann, Unit on Anxiety Disorders, Biological Psychiatry Branch, National Institute of Mental Health, 10 Center Dr, Bethesda, MD 20892-1272, United States. umccann@helix.nih.gov
SO Journal of the American Medical Association, (1997) 278/8 (666-672). Refs: 107
ISSN: 0098-7484 CODEN: JAMAAP
CY United States
DT Journal; General Review
FS 008 Neurology and Neurosurgery
015 Chest Diseases, Thoracic Surgery and Tuberculosis
037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
AB Objectives. - Obesity is an important clinical problem, and the use of dexfenfluramine hydrochloride for weight reduction has been widely publicized since its approval by the Food and Drug Administration. However, animal and human studies have demonstrated toxic effects of fenfluramines that clinicians should be aware of when considering prescribing the drugs. Our purpose was to systematically review data on brain serotonin neurotoxicity in animals treated with fenfluramines and the evidence linking fenfluramines to primary pulmonary hypertension (PPH). Data Sources. - Archival articles and reviews identified through a computerized search of MEDLINE from 1966 to April 1997 using 'fenfluramine(s),' 'serotonin,' 'neurotoxicity,' 'behavior,' 'anorexigens,' 'weight loss,' and 'primary pulmonary hypertension' as index terms. Study Selection. - Reports dealing with long-term effects of fenfluramines on brain serotonin neurons, body weight, and pulmonary function in animals and humans. Data Extraction. - Reports were reviewed by individuals with expertise in serotonin neurobiology, neurotoxicity, neuropsychiatry, and pulmonary medicine and evaluated for appropriateness for inclusion in this review. Data Synthesis. - Fenfluramines cause dose-related, long-lasting reductions in serotonin axonal markers in all the animal species tested and with all the routes of drug administration used. Doses of fenfluramines that produce signs of brain serotonin neurotoxicity in animals are on the same order as those used to treat humans for weight loss when one takes into account known relations between body mass and drug clearance. However, no human studies have been conducted, and the pathological and clinical potential for neurotoxicity in humans is unknown. Appetite suppressants-most commonly fenfluramines-increase the risk of developing PPH (odds ratio, 6.3), particularly when used for more than 3 months (odds ratio, >20). Conclusions. - Fenfluramine and dexfenfluramine have been demonstrated to damage brain serotonin neurons in animal studies. It is not known if such damage occurs in humans or if there are clinical consequences. Use of fenfluramines is associated with an increased risk of PPH. Future studies should address the long-term consequences of prolonged use of fenfluramines.
CT Medical Descriptors:
*brain
*neurotoxicity: DI, diagnosis
*neurotoxicity: ET, etiology
*neurotoxicity: SI, side effect
*pulmonary hypertension: ET, etiology
*pulmonary hypertension: DT, drug therapy
*pulmonary hypertension: SI, side effect
*pulmonary hypertension: SU, surgery

*pulmonary hypertension: EP, epidemiology
*serotoninergic nerve cell
body mass
clinical feature
dose response
drug brain level
drug efficacy
drug metabolism
drug safety
human
immunohistochemistry
intraperitoneal drug administration
intravenous drug administration
nonhuman
obesity: DT, drug therapy
obesity: DI, diagnosis
oral drug administration
priority journal
review
subcutaneous drug administration
transplantation
Drug Descriptors:
*aminorex: TO, drug toxicity
*aminorex: AE, adverse drug reaction
*dexfenfluramine: PK, pharmacokinetics
*dexfenfluramine: TO, drug toxicity
*dexfenfluramine: DO, drug dose
*dexfenfluramine: CR, drug concentration
*dexfenfluramine: AD, drug administration
*dexfenfluramine: AE, adverse drug reaction
*dexfenfluramine: DT, drug therapy
*fenfluramine: AD, drug administration
*fenfluramine: IT, drug interaction
*fenfluramine: CB, drug combination
*fenfluramine: CR, drug concentration
*fenfluramine: DO, drug dose
*fenfluramine: AE, adverse drug reaction
*fenfluramine: PK, pharmacokinetics
*fenfluramine: DT, drug therapy
*phentermine: DT, drug therapy
*phentermine: CB, drug combination
*phentermine: IT, drug interaction
*serotonin: EC, endogenous compound
3,4 methylenedioxymethamphetamine: TO, drug toxicity
5 hydroxyindoleacetic acid: EC, endogenous compound
5,6 dihydroxytryptamine: TO, drug toxicity
5,7 dihydroxytryptamine: TO, drug toxicity
amphetamine: TO, drug toxicity
anorexigenic agent: DO, drug dose
anorexigenic agent: CR, drug concentration
anorexigenic agent: CB, drug combination
anorexigenic agent: AD, drug administration
anorexigenic agent: AE, adverse drug reaction
anorexigenic agent: PK, pharmacokinetics
anorexigenic agent: DT, drug therapy
anorexigenic agent: IT, drug interaction
antibody
anticoagulant agent: DT, drug therapy
chloramphetamine: TO, drug toxicity

diuretic agent: DT, drug therapy
glial fibrillary acidic protein: EC, endogenous compound
neuromodulin: EC, endogenous compound
oxygen
potassium
prostacyclin: AD, drug administration
prostacyclin: DT, drug therapy
serotonin receptor: EC, endogenous compound
serotonin uptake inhibitor: AE, adverse drug reaction
structural protein: EC, endogenous compound
tricyclic antidepressant agent
tryptophan hydroxylase: EC, endogenous compound
vasodilator agent: AD, drug administration
vasodilator agent: DT, drug therapy

RN (aminorex) 13425-22-4, 2207-50-3; (dexfenfluramine) 3239-44-9, 3239-45-0; (fenfluramine) 404-82-0, 458-24-2; (phentermine) 1197-21-3, 122-09-8; (serotonin) 50-67-9; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (5 hydroxyindoleacetic acid) 1321-73-9, 54-16-0; (5,6 dihydroxytryptamine) 5090-36-8; (5,7 dihydroxytryptamine) 31363-74-3; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (chloramphetamine) 64-12-0; (oxygen) 7782-44-7; (potassium) 7440-09-7; (prostacyclin) 35121-78-9, 61849-14-7; (tryptophan hydroxylase) 9037-21-2

CN (1) Redux; (2) Redux; (3) Pondimin

CO (1) Wyeth ayerst (United States); (2) Interneuron (United States); (3) Robins (United States)

L39 ANSWER 37 OF 51 EMBASE
on STN

AN 97269033 EMBASE

DN 1997269033

TI High level expression of equine herpesvirus 1 glycoproteins D and H and their role in protection against virus challenge in the C3H (H-2K(k)) murine model.

AU Stokes A.; Cameron R.S.; Marshall R.N.; Killington R.A.

CS A. Stokes, NERC IVEM, Mansfield Road, Oxford, OX1 3SR, United Kingdom. asto@mail.nerc-oxford.ac.uk

SO Virus Research, (1997) 50/2 (159-173).
Refs: 47
ISSN: 0168-1702 CODEN: VIREDF

PUI S 0168-1702(97)00067-1

CY Netherlands

DT Journal; Article

FS 004 Microbiology
026 Immunology, Serology and Transplantation

LA English

SL English

AB N and C-terminal truncated forms of equine herpesvirus 1 (EHV 1) glycoproteins gD and gH were expressed in baculovirus resulting in the production of secreted recombinant proteins. A carboxy-terminal histidine tag was included on each of the genes for protein isolation by nickel affinity chromatography. Recombinant gD was recognized by three gD specific monoclonal antibodies, 20C4, 5H6 and F3132. F3132 is a conformationally dependent monoclonal antibody with virus neutralizing activity. Expression of gH was confirmed by reacting the protein with the gH peptide specific antiserum R319. The truncated gD gene was also expressed as a β-galactosidase fusion protein which was purified from E. coli by nickel affinity chromatography C3H mice were inoculated with purified recombinant gD or gH or insect cells which had been infected with

recombinant baculoviruses. Mice were subsequently challenged with EHV 1. Purified recombinant baculovirus gD provided the most protection and produced high **eve** s of virus neutralizing **antibodies.**
The gD fusion protein was less effective at protecting mice and insect cells infected with either of the recombinant baculoviruses or purified recombinant gH were poor at conferring protection. The results emphasize the importance of using purified proteins in vaccine formulations and of including EHV 1 gD as a component of a subunit vaccine.

CT Medical Descriptors:
*equine herpes virus
*virus infection
animal experiment
animal model
article
controlled study
immunization
mouse
nonhuman
priority journal
protection
Drug Descriptors:
*hybrid protein
*neutralizing antibody: EC, endogenous compound
*recombinant protein
*virus glycoprotein: EC, endogenous compound
*virus vaccine
beta galactosidase

L39 ANSWER 38 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 96049997 EMBASE
DN 1996049997
TI Comparison of polyclonal and monoclonal assays for routine screening of urines for amphetamines.
AU Moore F.M.L.; Jarvie D.R.; Simpson D.
CS Department of Clinical Biochemistry, The Royal Infirmary,Edinburgh EH3 9YW, United Kingdom
SO Annals of Clinical Biochemistry, (1996) 33/1 (78-81).
ISSN: 0004-5632 CODEN: ACBOBU
CY United Kingdom
DT Journal; Article
FS 037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
052 Toxicology
LA English
CT Medical Descriptors:
*drug screening
*drug urine level
*enzyme multiplied immunoassay technique
article
clinical trial
drug dependence
human
intermethod comparison
major clinical study
priority journal
Drug Descriptors:
*amphetamine
***monoclonal antibody**

***polyclonal antibody**
3,4 methylenedioxymethamphetamine
ephedrine
phenylpropanolamine
pseudoephedrine
RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxymethamphetamine) **42542-10-9** ; (ephedrine) 299-42-3, 50-98-6; (phenylpropanolamine) 14838-15-4, 154-41-6, 4345-16-8, 48115-38-4; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4

L39 ANSWER 39 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 95074977 EMBASE
DN 1995074977
TI Immunological approach to investigating membrane cell damages induced by lipoperoxidative stress: Application to far UV-irradiated erythrocytes.
AU Petit E.; Divoux D.; Chancerelle Y.; Kergonou J.F.; Nouvelot A.
CS Laboratoire de Neurosciences, URA 1829-CNRS, Bd Henri Becquerel,14052 Caen, Cedex, France
SO Biological Trace Element Research, (1995) 47/1-3 (17-28).
ISSN: 0163-4984 CODEN: BTERDG
CY United States
DT Journal; Conference Article
FS 005 General Pathology and Pathological Anatomy
029 Clinical Biochemistry
LA English
SL English
AB Oxygen-reactive species are being described as agents responsible for cell degeneration mechanisms resulting from membrane, enzyme, and nuclear alterations. Lipid peroxidation on its own is considered to be one of the consequences of the free radicals attack, and among the different reactive aldehydes that can be formed from the decomposition of lipid peroxides, the most extensively assayed have been malondialdehyde (MDA). However, the different techniques currently used for MDA assay (HPLC, GLC) are barely sensitive enough to follow its production at the cellular level. In order to develop an immunofluorescent technique able to detect cellular damages provoked by lipoperoxidation, polyclonal **antibodies** against lysozyme modified by MDA treatment have been raised in rabbits. We show that this immunserum recognizes specifically all the MDA-treated proteins tested, but not the intact proteins or the proteins treated by other aldehydes. Moreover, we demonstrate using an ELISA technique that the amount of immunoreactive proteins in MDA-treated membrane erythrocytes is proportional to the concentration of MDA applied, suggesting that this assay may represent a quantitative method of determination of lipoperoxidative alterations. In addition, when coupled to an indirect fluorophore **antibody** (FITC), the immunserum allows a precise location of these modified proteins within the membranes of erythrocytes in which lipid peroxidation was initiated by far UV irradiation. In summary, the interest of this work is to provide an immunological probe that can precociously detect membrane damages induced by MDA, regardless of the cell type and prooxidant (physiological or pathological) conditions.
CT Medical Descriptors:
*cell damage
*lipid peroxidation
animal experiment
conference paper
controlled study

enzyme linked immunosorbent assay
erythrocyte ghost
human
human cell
immunoblotting
immunofluorescence microscopy
immunoreactivity
membrane damage
nonhuman
oxidative stress
polyacrylamide gel electrophoresis
protein modification
ultraviolet irradiation
Drug Descriptors:
3,4 methylenedioxyamphetamine
aldehyde
lysozyme
polyclonal antibody
polypeptide

RN (3,4 methylenedioxyamphetamine) **4764-17-4**; (lysozyme) 9001-63-2

L39 ANSWER 40 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 95162576 EMBASE
DN 1995162576
TI 125I radioimmunoassay for the dual detection of amphetamine and methamphetamine.
AU Ward C.; McNally A.J.; Rusyniak D.; Salamone S.J.
CS Intl. Drug Monitoring Business Unit, Roche Diagnostic Systems, Inc., 1080 US Highway 202,Branchburg, NJ 08876-1760, United States
SO Journal of Forensic Sciences, (1994) 39/6 (1486-1496).
ISSN: 0022-1198 CODEN: JFSCAS
CY United States
DT Journal; Article
FS 037 Drug Literature Index
040 Drug Dependence, Alcohol Abuse and Alcoholism
049 Forensic Science Abstracts
052 Toxicology
LA English
SL English
AB A radioimmunoassay that exhibits a nearly equivalent response to D-amphetamine and D-methamphetamine in urine over the assay range of 0 to 1000 ng/mL while displaying low cross-reactivity to L-amphetamine and L-methamphetamine (4.6% and 2.4%, respectively) has been developed. In addition, methylenedioxy-amphetamine (MDA) and methylenedioxymethamphetamine (MDMA) were detectable in the assay with cross-reactivity levels of >100% and 77% respectively. Little cross-reactivity was observed with the commonly encountered over-the-counter (OTC) drags and this cross-reactivity was further reduced by the addition of sodium periodate into the reaction mixture to oxidize the β-hydroxylamines. The double (second) **antibody** assay uses 125I-radiolabeled derivatives of both D-amphetamine and D-methamphetamine as tracers in combination with two highly specific sheep antisera directed against D-amphetamine and D-methamphetamine. The assay exhibits a dose response of approximately 90,000 dpm from 0 to 1000 ng/mL of D-amphetamine or D-methamphetamine with a minimum detectable dose for either drag of approximately 25 ng/mL. With a cut-off level of 500 ng/mL, the assay gave a positive result for 100% of the 111 clinical samples containing GC/MS confirmed (at or above the NIDA GC/MS cut-off values)

levels of amphetamine and/or methamphetamine. Eighty eight samples that screened negative in a clinical laboratory were all negative in the assay. Nineteen samples which were incorrectly identified as positive by other commercially available amphetamine assays were negative in this RIA.

CT Medical Descriptors:
*drug cross reactivity
*drug screening
*radioimmunoassay
article
concentration response
controlled study
drug structure
gas chromatography
human
isotope labeling
mass spectrometry
priority journal
urinalysis
Drug Descriptors:
*amphetamine: AN, drug analysis
*amphetamine: DO, drug dose
*antigen: AN, drug analysis
*iodine 125
*methamphetamine: DO, drug dose
*methamphetamine: AN, drug analysis
*periodate sodium
*tracer: AN, drug analysis
3,4 methylenedioxyamphetamine
3,4 methylenedioxymethamphetamine
4 (2 aminopropyl) n [2 (4 hydroxyphenyl)ethyl]benzenebutanamide: AN, drug analysis
benzene derivative: AN, drug analysis
ephedrine
hydroxyamphetamine
n [2 (4 hydroxyphenyl)ethyl] 4 [2 (methylamino)propyl]benzenebutanamide: AN, drug analysis
n [4 [4 (2 aminopropyl)phenyl] 1 oxobutyl]lysyl bovine thyroglobulin: AN, drug analysis
n [4 [4 [2 (methylamino)propyl]phenyl] 1 oxobutyl]lysyl bovine thyroglobulin: AN, drug analysis
norpseudoephedrine
phenethylamine
phentermine
phenylpropanolamine
propylhexedrine
pseudoephedrine
tyramine
unclassified drug

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (iodine 125) 14158-31-7, 22822-81-7; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (periodate sodium) 7790-28-5; (3,4 methylenedioxyamphetamine) **4764-17-4**; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (ephedrine) 299-42-3, 50-98-6; (hydroxyamphetamine) 103-86-6, 1518-86-1, 306-21-8; (norpseudoephedrine) 2153-98-2, 36393-56-3, 492-39-7; (phenethylamine) 64-04-0; (phentermine) 1197-21-3, 122-09-8; (phenylpropanolamine) 14838-15-4, 154-41-6, 4345-16-8, 48115-38-4; (propylhexedrine) 101-40-6, 3595-11-7, 532-52-5, 6192-97-8; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4; (tyramine) 51-67-2, 60-19-5

CO Sigma; Amersham

L39 ANSWER 41 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 94286546 EMBASE
DN 1994286546
TI The endogenous vascular elastase that governs development and progression of monocrotaline-induced pulmonary hypertension in rats is a novel enzyme related to the serine proteinase adipsin.
AU Zhu L.; Wigle D.; Hinek A.; Kobayashi J.; Ye C.; Zuker M.; Dodo H.; Keeley F.W.; Rabinovitch M.
CS Division of Cardiovascular Research, Hospital for Sick Children, 555 University Avenue,Toronto, Ont. M5G 1X8, Canada
SO Journal of Clinical Investigation, (1994) 94/3 (1163-1171).
ISSN: 0021-9738 CODEN: JCINAO
CY United States
DT Journal; Article
FS 005 General Pathology and Pathological Anatomy
006 Internal Medicine
007 Pediatrics and Pediatric Surgery
015 Chest Diseases, Thoracic Surgery and Tuberculosis
018 Cardiovascular Diseases and Cardiovascular Surgery
LA English
SL English
AB We showed previously a cause and effect relationship between increased activity of an endogenous vascular elastase (EVE) and experimentally induced pulmonary hypertension in rats. We now report the isolation and characterization of EVE. Degenerate oligonucleotides synthesized to homologous sequences in serine elastases were used in a PCR with rat pulmonary artery (PA) cDNA. The PCR product hybridized to a 1.2-kb mRNA and the intensity of hybridization was threefold increased in RNA from rat hypertensive PA at a timepoint when EVE activity was increased. The PCR product was used to screen a cDNA library and sequences obtained encoded rat adipsin. We then used immunoaffinity to purify **EVE.** An **antibody** to the elastin-binding protein was used to remove this competitor of elastase from the PA extract and the elastolytic activity increased 100-fold. The enzyme was purified using an antibody that recognizes NH2-terminal sequences of serine proteinases and the eluate was further purified using an antibody raised against recombinant adipsin. A single band at 20 kD immunoreactive with the adipsin antibody was resolved as an active enzyme on an elastin substrate gel. Immunogold labeling with an antibody to an adipsin peptide sequence localized EVE to PA smooth muscle cells. This is the first isolation of EVE; it appears to be a novel enzyme related to the serine proteinase adipsin originally found in adipose tissue.
CT Medical Descriptors:
*pulmonary hypertension
animal tissue
article
enzyme activity
nonhuman
pathophysiology
priority journal
pulmonary artery
rat
vascular smooth muscle
Drug Descriptors:
*adipsin
*elastase

*serine proteinase
RN (adipsin) 104118-48-1; (elastase) 9004-06-2; (serine proteinase) 37259-58-8

L39 ANSWER 42 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
AN 90330367 EMBASE
DN 1990330367
TI Detection of D,L-amphetamine, D,L-methamphetamine, and illicit amphetamine analogs using Diagnostic Products Corporation's amphetamine and methamphetamine radioimmunoassay.
AU Cody J.T.
CS Air Force Drug Testing Laboratory, Brooks AFB, TX 78235-5000, United States
SO Journal of Analytical Toxicology, (1990) 14/5 (321).
ISSN: 0146-4760 CODEN: JATOD3
CY United States
DT Journal; Note
FS 029 Clinical Biochemistry
052 Toxicology
LA English
SL English
AB Cross-reactivity with Diagnostic Products Corporation (DPC) amphetamine and methamphetamine radioimmunoassay (RIA) reagents was determined for amphetamine, methamphetamine, and a number of amphetamine analogs. Concentrations from 100 to 100,000 ng/mL were assayed. 3,4-Methylenedioxyamphetamine (MDA) and 3,4-methylenedioxymethamphetmaine (MDMA) showed significant cross-reactivity for the amphetamine and methamphetamine reagents respectively. 4-Hydroxymethamphetamine, 3,4-methylenedioxyethylamphetamine (MDEA), and N,N-dimethyl-MDA also showed significant cross-reactivity with the methamphetamine reagents, but less than MDMA. None of the other analogs showed a positive result with the amphetamine or methamphetamine reagents at even the highest concentration, although several did show measurable cross-reactivity. The L isomers of amphetamine and methamphetamine showed substantially less cross-reactivity than the D forms to which the respective **antibody** systems are targeted.
CT Medical Descriptors:
*amphetamine analog
*radioimmunoassay
drug analysis
nonhuman
methodology
note
priority journal
Drug Descriptors:
*amphetamine
*methamphetamine
3,4 methylenedioxyamphetamine
3,4 methylenedioxymethamphetamine
illicit drug
RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (3,4 methylenedioxyamphetamine) **4764-17-4**; (3,4 methylenedioxymethamphetamine) **42542-10-9**

L39 ANSWER 43 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2003:381237 BIOSIS

DN PREV200300381237
TI (+) 3,4 - METHYLENEDIOXYMETHAMPHETAMINE ((+) - MDMA) INDUCES THE IMMEDIATE - EARLY GENE c - Fos IN THE PATCH AND MATRIX COMPARTMENTS OF THE RAT STRIATUM.
AU Frankel, P. S. [Reprint Author]; Szucs, R. P. [Reprint Author]; Herin, D. V. [Reprint Author]; Cunningham, K. A. [Reprint Author]
CS Department of Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX, USA
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No. 901.8. http://sfn.scholarone.com. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002. Society for Neuroscience.
DT Conference; (Meeting)
Conference; (Meeting Poster)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 20 Aug 2003
Last Updated on STN: 20 Aug 2003
AB Most abused drugs including 3,4-methylenedioxymethamphetamine (MDMA, "ecstasy") evoke expression of the immediate-early gene (IEG) protein c-Fos in the rat striatum; however, little is known about the characteristics of the striatal cells expressing c-Fos. The striatum is divided into two compartments based upon inputs, outputs and genes expressed. These compartments are the patch (striosome; apprxeq15% of striatal volume) and the matrix (apprxeq85% of striatal volume). Amphetamine induces c-Fos in both striatal compartments and in the present study, we investigated the ability of the most behaviorally active isomer of MDMA ((+)-MDMA), to induce c-Fos in both striatal compartments; the patch compartment was differentiated from the matrix by labeling immunohistochemically with a mu opioid receptor **antibody.** Rats were injected with either saline, (+)-MDMA (1 or 10 mg/kg) or amphetamine (5 mg/kg) and perfused 2 hours later; the brains were processed immunohistochemically for the IEG c-Fos and the mu opioid receptor. (+)-MDMA significantly increased c-Fos expression in both the patch and matrix compartments in a dose-related manner. These results are the first demonstration that striatal cells in both compartments are sensitive to activation by (+)-MDMA, an effect shared with amphetamine. Activation of c-Fos expression in both striatal compartments suggests that striatal input and output pathways contribute extensively to the pattern of behavior evoked by (+)-MDMA.
CC General biology - Symposia, transactions and proceedings 00520
Genetics - General 03502
Genetics - Animal 03506
Biochemistry studies - General 10060
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Pharmacology - General 22002
Pharmacology - Neuropharmacology 22024
IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Nervous System (Neural Coordination); Pharmacology
IT Parts, Structures, & Systems of Organisms
brain: nervous system; striatum: nervous system, matrix compartment, patch compartment
IT Chemicals & Biochemicals
MDMA: autonomic-drug, pharmacodynamics; amphetamine: autonomic-drug, pharmacodynamics; mu opioid receptor
ORGN Classifier
Muridae 86375

Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat (common)
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **42542-10-9** (MDMA)
300-62-9 (amphetamine)
GEN rat c-Fos gene (Muridae): expression, immediate-early gene, regulation

L39 ANSWER 44 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:206618 BIOSIS
DN PREV200400207134
TI Modulation of 5 - HT neurochemistry by S - glutathionylation: potential role in MDMA neurotoxicity.
AU Sakowski, S. A. [Reprint Author]; Sadidi, M.; Kuhn, D. M. [Reprint Author]
CS Ctr. for Molec Med. and Genet, Wayne State Univ. Sch. of Med, Detroit, MI, USA
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 961.5. http://sfn.scholarone.com. e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 14 Apr 2004
Last Updated on STN: 14 Apr 2004
AB Tryptophan hydroxylase (TPH) is the initial and rate-limiting enzyme in the formation of the neurotransmitter serotonin. The neurotoxic amphetamine MDMA causes significant reductions in TPH activity. Though the mechanisms by which MDMA affects TPH and damages the serotonin neuronal system have not been determined, oxidative stress has been implicated as an underlying mechanism. MDMA intoxication has also been associated with alterations in glutathione (GSH) levels and function. Therefore, we hypothesized that GSH could be interacting with reactive species to modify TPH. Diamide, a thiol-specific oxidant used to mimic oxidative stress, slightly inhibits TPH activity. This inhibition is significantly enhanced by GSH. GSSG, the oxidized form of GSH, also inhibits TPH activity. This inhibition by GSH-diamide can be prevented by reducing agents and antioxidants and is partially reversed by dithiothreitol (DTT). Treatment of TPH with GSH-diamide, or with GSSG, results in the binding of GSH to the enzyme as revealed by immunoblotting with an **antibody** against GSH-modified proteins. These post-translational modifications caused by GSH-diamide and GSSG are prevented and reversed by DTT and establish that TPH is modified by S-glutathionylation, the formation of a disulfide linkage between GSH and protein cysteine residues. The reactive nitrogen species peroxynitrite and nitrogen dioxide, in the presence of GSH, also cause S-glutathionylation of TPH. S-nitrosothiols such as GSNO or GSNO2, which are formed when peroxynitrite interacts with GSH, both inhibit TPH and cause S-glutathionylation. S-glutathionylation represents a new mechanism by which serotonin neurochemistry can be regulated and represents a probable mechanism by which TPH is inhibited in vivo by neurotoxic amphetamines.
CC General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Endocrine - Neuroendocrinology 17020

Nervous system - Physiology and biochemistry 20504
Nervous system - Pathology 20506
Toxicology - General and methods 22501
Immunology - General and methods 34502
IT Major Concepts
Nervous System (Neural Coordination)
IT Parts, Structures, & Systems of Organisms
serotonin neuronal system: nervous system
IT Diseases
intoxication: toxicity
IT Diseases
neurotoxicity: nervous system disease
IT Chemicals & Biochemicals
5-HT [serotonin]; DTT [dithiothreitol]; GSH [glutathione]; GSSG; MDMA; S-nitrosothiols; amphetamine; **antibodies**; antioxidants; diamide; neurotransmitters; nitrogen dioxide; peroxynitrite; reactive nitrogen species
IT Methods & Equipment
immunoblotting: immunologic techniques, laboratory techniques
IT Miscellaneous Descriptors
neurochemistry
RN 50-67-9 (5-HT)
50-67-9 (serotonin)
3483-12-3 (DTT)
3483-12-3 (dithiothreitol)
70-18-8 (GSH)
70-18-8 (glutathione)
42542-10-9 (MDMA)
300-62-9 (amphetamine)
10465-78-8 (diamide)
10102-44-0 (nitrogen dioxide)
19059-14-4 (peroxynitrite)
7727-37-9 (reactive nitrogen species)

L39 ANSWER 45 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:131172 BIOSIS
DN PREV200100131172
TI Ecstasy induced severe acute hepatitis among young adults.
AU Akhras, Jamil [Reprint author]; Kinzie, Joseph L. [Reprint author]
CS Wayne State University, Detroit, MI, USA
SO American Journal of Gastroenterology, (September, 2000) Vol. 95, No. 9, pp. 2558-2559. print.
Meeting Info.: 65th Annual Scientific Meeting of the American College of Gastroenterology. New York, New York, UK. October 13-18, 2000. American College of Gastroenterology.
CODEN: AJGAAR. ISSN: 0002-9270.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 14 Mar 2001
Last Updated on STN: 15 Feb 2002
CC Biochemistry studies - Proteins, peptides and amino acids 10064
General biology - Symposia, transactions and proceedings 00520
Behavioral biology - Human behavior 07004
Biochemistry studies - General 10060
Biochemistry studies - Porphyrins and bile pigments 10065
Enzymes - General and comparative studies: coenzymes 10802
Pathology - Diagnostic 12504
Digestive system - Physiology and biochemistry 14004

Digestive system - Pathology 14006
Urinary system - Physiology and biochemistry 15504
Integumentary system - Pathology 18506
Psychiatry - Psychopathology, psychodynamics and therapy 21002
Toxicology - General and methods 22501
IT Major Concepts
Gastroenterology (Human Medicine, Medical Sciences); Toxicology
IT Parts, Structures, & Systems of Organisms
liver: digestive system, echogenicity; stool: digestive system, clay-colored; urine: excretory system, dark color
IT Diseases
anorexia: behavioral and mental disorders
Anorexia (MeSH)
IT Diseases
jaundice: digestive system disease
Jaundice (MeSH)
IT Diseases
nausea: digestive system disease
Nausea (MeSH)
IT Diseases
pruritus: integumentary system disease
Pruritus (MeSH)
IT Diseases
severe acute hepatitis: digestive system disease, toxicity, treatment
IT Chemicals & Biochemicals
ALT [alanine aminotransferase]; AMA [anti-mitochondrial **antibody**]; ANA [anti-nuclear **antibody**]; ASMA [anti-smooth muscle **antibody**]; AST [aspartate transaminase]; HCV Ab [hepatitis C virus **antibody**]; HCV PCR/RNA [hepatitis C virus polymerase chain reaction/RNA]; HEV Ab [hepatitis E virus **antibody**]; albumin; alcohol: toxin; alkaline phosphatase; bilirubin; ecstasy: toxicity; hepatitis A **antibody**; hepatitis B core **antibody** [HbcAb]; hepatitis B surface **antibody** [HbsAb]; hepatitis B surface antigen [HbsAg]
IT Methods & Equipment
PT [prothrombin time]: diagnostic method; abdominal ultrasound: imaging method
IT Miscellaneous Descriptors
clay-colored stool; lethargy; Meeting Abstract
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: Caucasian, adult, female, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 64-17-5 (alcohol)
9001-78-9 (alkaline phosphatase)
635-65-4 (bilirubin)
42542-10-9 (ecstasy)
9000-86-6 (ALANINE AMINOTRANSFERASE)

L39 ANSWER 46 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:365197 BIOSIS
DN PREV200000365197
TI Effect of MDMA on microtubule-associated protein 2 (MAP2) in the rat brain: An ELISA study.
AU Meller, R. [Reprint author]; Zetterstrom, T. [Reprint author]; Mechan, A.

O. [Reprint author]; Green, A. R. [Reprint author]; Elliott, J. M. [Reprint author]
CS School of Pharmacy, DeMontfort University, Leicester, LE3 0QL, UK
SO European Journal of Neuroscience, (2000) Vol. 12, No. Supplement 11, pp. 206. print.
Meeting Info.: Meeting of the Federation of European Neuroscience Societies. Brighton, UK. June 24-28, 2000.
ISSN: 0953-816X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 23 Aug 2000
Last Updated on STN: 8 Jan 2002
CC Pharmacology - General 22002
Cytology - Animal 02506
Pathology - Therapy 12512
Nervous system - Physiology and biochemistry 20504
Toxicology - General and methods 22501
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Nervous System (Neural Coordination); Pharmacology; Toxicology
IT Parts, Structures, & Systems of Organisms
hippocampus: nervous system; neuronal dendrites: nervous system; serotoninergic neurons: nervous system
IT Chemicals & Biochemicals
3,4-methylenedioxymethamphetamine [MDMA, ecstasy]; microtubular associated protein 2
IT Methods & Equipment
ELISA: **antibody** detection method
IT Miscellaneous Descriptors
synaptic density; Meeting Abstract; Meeting Poster
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat: male, strain-Dark Agouti
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN **42542-10-9** (3,4-methylenedioxymethamphetamine)
42542-10-9 (MDMA)
42542-10-9 (ecstasy)

L39 ANSWER 47 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:311430 BIOSIS
DN PREV199699033786
TI Distinct pharmacological properties and distribution in neurons and endocrine cells of two isoforms of the human vesicular monoamine transporter.
AU Erickson, Jeffrey D. [Reprint author]; Schaefer, Martin K. H.; Bonner, Tom I.; Eiden, Lee E.; Weihe, Eberhard
CS Building 36, Room 3A-17, National Inst. Mental Health/National Inst. Health, Bethesda, MD 20892, USA
SO Proceedings of the National Academy of Sciences of the United States of America, (1996) Vol. 93, No. 10, pp. 5166-5171.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article

LA English
ED Entered STN: 11 Jul 1996
Last Updated on STN: 11 Jul 1996
AB A second isoform of the human vesicular monoamine transporter (hVMAT) has been cloned from a pheochromocytoma cDNA library. The contribution of the two transporter isoforms to monoamine storage in human neuroendocrine tissues was examined with isoform-specific polyclonal **antibodies** against hVMAT1 and hVMAT2. Central, peripheral, and enteric neurons express only VMAT2. VMAT1 is expressed exclusively in neuroendocrine, including chromaffin and enterochromaffin, cells. VMAT1 and VMAT2 are coexpressed in all chromaffin cells of the adrenal medulla. VMAT2 alone is expressed in histamine-storing enterochromaffin-like cells of the oxyntic mucosa of the stomach. The transport characteristics and pharmacology of each VMAT isoform have been directly compared after expression in digitonin-permeabilized fibroblastic (CV-1) cells, providing information about substrate feature recognition by each transporter and the role of vesicular monoamine storage in the mechanism of action of psychopharmacologic and neurotoxic agents in human. Serotonin has a similar affinity for both transporters. Catecholamines exhibit a 3-fold higher affinity, and histamine exhibits a 30-fold higher affinity, for VMAT2. Reserpine and ketanserin are slightly more potent inhibitors of VMAT2-mediated transport than of VMAT1-mediated transport, whereas tetrabenazine binds to and inhibits only VMAT2. N-methyl-4-phenylpyridinium, phenylethylamine, amphetamine, and methylenedioxymethamphetamine are all more potent inhibitors of VMAT2 than of VMAT1, whereas fenfluramine is a more potent inhibitor of VMAT1-mediated monamine transport than of VMAT2-mediated monoamine transport. The unique distributions of hVMAT1 and hVMAT2 provide new markers for multiple neuroendocrine lineages, and examination of their transport properties provides mechanistic insights into the pharmacology and physiology of amine storage in cardiovascular, endocrine, and central nervous system function.
CC Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Molecular properties and macromolecules 10506
Biophysics - Membrane phenomena 10508
Movement 12100
Metabolism - Proteins, peptides and amino acids 13012
Digestive system - Physiology and biochemistry 14004
Endocrine - General 17002
Endocrine - Adrenals 17004
Endocrine - Neuroendocrinology 17020
Nervous system - Physiology and biochemistry 20504
Pharmacology - Neuropharmacology 22024
Toxicology - General and methods 22501
IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Digestive System (Ingestion and Assimilation); Endocrine System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Metabolism; Nervous System (Neural Coordination); Pharmacology; Toxicology
IT Chemicals & Biochemicals
RESERPINE; KETANSERIN; TETRABENAZINE; N-METHYL-4-PHENYLPYRIDINIUM; PHENYLETHYLAMINE; AMPHETAMINE; METHYLENEDIOXYMETHAMPHETAMINE; FENFLURAMINE; SEROTONIN; HISTAMINE
IT Miscellaneous Descriptors
ADRENAL MEDULLA; AMINE STORAGE; AMPHETAMINE; BINDING AFFINITY; CATECHOLAMINE; CENTRAL NEURON; CHROMAFFIN CELL; ENTERIC NEURON;

ENTEROCHROMAFFIN CELL; FENFLURAMINE; HISTAMINE; INHIBITION; KETANSERIN; METHYLENEDIOXYMETHAMPHETAMINE; N-METHYL-4-PHENYLPYRIDINIUM; NEUROTOXICITY; OXYNTIC MUCOSA; PERIPHERAL NEURON; PHENYLETHYLAMINE; RESERPINE; SEROTONIN; STOMACH; TETRABENAZINE

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Hominidae
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 50-55-5 (RESERPINE)
74050-98-9 (KETANSERIN)
58-46-8 (TETRABENAZINE)
48134-75-4 (N-METHYL-4-PHENYLPYRIDINIUM)
300-62-9 (AMPHETAMINE)
42542-10-9 (METHYLENEDIOXYMETHAMPHETAMINE)
458-24-2 (FENFLURAMINE)
50-67-9 (SEROTONIN)
51-45-6 (HISTAMINE)
64-04-0 (PHENYLETHYLAMINE)
54946-52-0 (METHYLENEDIOXYMETHAMPHETAMINE)

L39 ANSWER 48 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1994:177769 BIOSIS
DN PREV199497190769
TI TGF and TGF-beta-3 immunoreactivity within the ciliary epithelium.
AU Peress, Nancy S. [Reprint author]; Perillo, Edward
CS Dep. Pathol., State Univ. New York Stony Brook, BHS Tower 9, Stony Brook, NY 11794-8691, USA
SO Investigative Ophthalmology and Visual Science, (1994) Vol. 35, No. 2, pp. 453-457.
CODEN: IOVSDA. ISSN: 0146-0404.
DT Article
LA English
ED Entered STN: 26 Apr 1994
Last Updated on STN: 26 Apr 1994
AB Purpose. To determine whether the ciliary epithelium exhibits immunoreactivity for antibodies to transforming growth factor beta (TGF-beta) 2 and TGF-beta-3. The hypothesis was that because the aqueous humor contains mainly biologically active TGF-beta-2, with little TGF-beta-1, the epithelium largely responsible for its composition would also contain this isoform of TGF-beta. The authors anticipated TGF-beta-3 immunoreactivity because TGF-beta-3 often co-localizes with TGF-beta-2. Methods. The authors followed a standard immunohistochemical protocol using the avidin-biotin complex and newly available rabbit antibodies to synthetic peptide sequences of TGF-beta-2 and TGF-beta-3. Formalin-fixed, paraffin-embedded samples of freshly obtained rabbit and human autopsy eves were studied. Specificity was supported by specific peptide absorption of antisera before tissue incubation. Results. The pigmented and nonpigmented ciliary epithelia of rabbit and human **eves** were stained by **antibodies** to both TGF-beta-2 and TGF-beta-3, and the staining was inhibited by preabsorption of antibodies by peptides of TGF-beta-2 and TGF-beta-3. Conclusions. The authors conclude that the ciliary epithelium exhibits TGF-beta-2- and TGF-beta-3-like immunoreactivity that, based upon complementary work from other laboratories, is probably synthesized by this epithelium and is not simply absorbed by it from the aqueous humor.

CC Microscopy - Histology and histochemistry 01056
Cytology - Animal 02506
Cytology - Human 02508
Genetics - Animal 03506
Biochemistry methods - Proteins, peptides and amino acids 10054
Biochemistry methods - Carbohydrates 10058
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Biophysics - Molecular properties and macromolecules 10506
Biophysics - Membrane phenomena 10508
Endocrine - General 17002
Sense organs - Anatomy 20002
Sense organs - Physiology and biochemistry 20004
Immunology - General and methods 34502
IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Endocrine System (Chemical Coordination and Homeostasis); Genetics; Immune System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Sense Organs (Sensory Reception)
IT Miscellaneous Descriptors
OCULAR CYTOKINES; TRANSFORMING GROWTH FACTOR-BETA; TRANSFORMING GROWTH FACTOR-BETA-3
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGN Classifier
Leporidae 86040
Super Taxa
Lagomorpha; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rabbit
Taxa Notes
Animals, Chordates, Lagomorphs, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

L39 ANSWER 49 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1991:272222 BIOSIS
DN PREV199192004837; BA92:4837
TI ESTABLISHMENT CHARACTERIZATION AND APPLICATION OF MONOCLONAL **ANTIBODIES** AGAINST EEL VIRUS EUROPEAN **EVE.**
AU CHI S-C [Reprint author]; CHEN S-N; KOU G-H
CS DEP ZOOL, NATL TAIWAN UNIV, TAIPEI, TAIWAN
SO Fish Pathology, (1991) Vol. 26, No. 1, pp. 1-8.
CODEN: GYKEDT. ISSN: 0388-788X.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 13 Jun 1991
Last Updated on STN: 13 Jun 1991
AB A panel of six monoclonal **antibodies** (MAbs) against eel virus European (**EVE**) isolated from eel (Anguilla japonica) with branchionephritis was established in the present study. These systems have been applied for a rapid identification and presumptive serotyping of aquatic biravirus isolates using western immunoblot assay. Amongst these

six MAbs, four were demonstrated to be able to react with viral γ-polypeptide, whereas the other two were specific to viral β-polypeptide. Three MAbs identified epitopes that were highly conserved among members of AB serotype. One MAb recognizied an epitope present on AB and SP serotype strains. Two MAbs exhibit the common epitopes observed on AB, SP and VR299 serotypes of infectious pancreatic necrosis virus (IPNV). One of these two MAbs could react with all aquatic birnavirus isolates from various areas including Asia, North America and Europe. Six isolates from Asia exhibiting five varying reaction patterns were demonstrated to be distinct from AB, SP and VR299 serotypes.

CC Cytology - Animal 02506
Ecology: environmental biology - Wildlife management: aquatic 07516
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Biophysics - Methods and techniques 10504
Pathology - Inflammation and inflammatory disease 12508
Urinary system - Pathology 15506
Respiratory system - Pathology 16006
Virology - Animal host viruses 33506
Immunology - General and methods 34502
Immunology - Bacterial, viral and fungal 34504
Medical and clinical microbiology - Virology 36006
Medical and clinical microbiology - Serodiagnosis 36504
Chordata: general and systematic - Pisces 62510

IT Major Concepts
Cell Biology; Immune System (Chemical Coordination and Homeostasis); Infection; Microbiology; Pathology; Respiratory System (Respiration); Serology (Allied Medical Sciences); Systematics and Taxonomy; Urinary System (Chemical Coordination and Homeostasis); Wildlife Management (Conservation)

IT Miscellaneous Descriptors
ANGUILLA-JAPONICA BIRNAVIRUS VIRAL POLYPEPTIDE BRANCHIONEPHRITIS SEROTYPING WESTERN IMMUNOBLOT ASSAY FISHERY SIGNIFICANCE

ORGN Classifier
Rhabdoviridae 03504
Super Taxa
Negative Sense ssRNA Viruses; Viruses; Microorganisms
Taxa Notes
Microorganisms, Negative Sense Single-Stranded RNA Viruses, Viruses

ORGN Classifier
Osteichthyes 85206
Super Taxa
Pisces; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Fish, Nonhuman Vertebrates, Vertebrates

L39 ANSWER 50 OF 51 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2004-398544 [37] WPIX
CR 2003-723361 [69]
DNN N2004-317703 DNC C2004-149133
TI Novel amphetamine derivative compounds, useful as immunogens for producing antibodies specific for ecstasy-class of drugs, e.g. 3,4-methylenedioxy-N-ethylamphetamine.
DC B04 B05 D16 S03
IN BABURINA, I; HUI, R A; JORDAN, S; ROOT, R T; VITONE, S
PA (HOFF) ROCHE DIAGNOSTICS CORP
CYC 1
PI US 2004077021 A1 20040422 (200437)* 23
ADT US 2004077021 A1 CIP of US 2002-87612 20020301, US 2003-622524 20030718

PRAI US 2003-622524 20030718; US 2002-87612 20020301
AB US2004077021 A UPAB: 20040611
NOVELTY - An amphetamine derivative compound (C1) of formula (I), is new.
DETAILED DESCRIPTION - An amphetamine derivative compound (C1) of formula (I).
R1 = an alkyl group comprising 2-6 carbon atoms;
R2 = hydrogen, alkyl groups, or protecting groups;
R3 = optionally substituted alkyl group;
Z = L-X-Q;
L = a group comprising 1-15 carbon atoms and 0-6 heteroatoms;
X = O, CO, NR4, S, C(=NH)O, NH(CO), NH(CO)NH, NH(CS), NH(CS)NH, O(CO)NH, NH(C=NH), or maleimidothioether;
R4 = hydrogen or alkyl groups; and
Q = hydrogen, hydroxyl, leaving groups, macromolecular carriers, or labels.
INDEPENDENT CLAIMS are also included for:
(1) an antibody (Ab1) that preferentially binds 3,4-methylenedioxy-N-ethylamphetamine (MDEA) relative to other members of the ecstasy-class of drugs, where the antibody is a monoclonal antibody produced from a cell line NEAMP 48.2, ATCC designation PTA-5295, or is a monoclonal antibody produced from a cell line Cell line NEAMP 62.1, ATCC designation PTA-5294;
(2) cell line NEAMP 48.2, ATCC designation PTA-5295, producing a monoclonal **antibody** preferentially binding to **MDEA**;
(3) a monoclonal **antibody** that binds preferentially to **MDEA** in a manner equivalent to that of an antibody from cell line NEAMP 48.2, ATCC designation PTA-5295;
(4) cell line NEAMP 62.1, ATCC designation PTA-5294, producing a monoclonal **antibody** that preferentially binds to **MDEA**;
(5) a monoclonal **antibody** that binds preferentially to **MDEA** in a manner equivalent to that of an antibody from a cell line NEAMP 62.1, ATCC designation PTA-5294;
(6) an antibody generated in response to (C1); and
(7) a reagent kit comprising Ab1.
USE - (C1) is useful for producing an antibody specific for the amphetamine derivative which involves inoculating a host with an immunogen comprising (C1). Ab1 is useful for detecting an analyte in a sample, which involves contacting the sample with the antibody, binding the antibody to the analyte, and detecting a complex formed by the antibody and the analyte. The analyte is chosen from an amphetamine, an amphetamine derivative, an ecstasy-class drug (preferably MDEA), an ecstasy-class drug derivative or their derivatives (claimed).
ADVANTAGE - Antibodies produced in response to (C1), show particularly high recognition for the ecstasy-class drug MDEA, which is generally poorly detected by conventional amphetamine and methamphetamine immunoassays. The antibody thus produced can be used as a booster antibody to increase detection in an existing amphetamine or methamphetamine assay or as a separate **antibody** for **MDEA** in immunoassays for MD-class drugs.
Dwg.0/6

L39 ANSWER 51 OF 51 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN 2003-723361 [69] WPIX
CR 2004-398544 [37]
DNN N2003-578376 DNC C2003-199236
TI New methylenedioxy class of amphetamine derivatives useful as immunogen in the production of an antibody specific for ecstasy drugs.
DC B02 B04 D16 S03
IN HUI, R A; ROOT, R T; VITONE, S S
PA (HOFF) HOFFMANN LA ROCHE & CO AG F; (HOFF) ROCHE DIAGNOSTICS GMBH; (HOFF)

ROCHE DIAGNOSTICS CORP
CYC 34
PI EP 1340980 A1 20030903 (200369)* EN 34
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
CA 2419698 A1 20030901 (200369) EN
US 2003170917 A1 20030911 (200369)
JP 2004123692 A 20040422 (200428) 85
ADT EP 1340980 A1 EP 2003-3297 20030225; CA 2419698 A1 CA 2003-2419698 20030224; US 2003170917 A1 US 2002-87612 20020301; JP 2004123692 A JP 2003-49992 20030226
PRAI US 2002-87612 20020301
AB EP 1340980 A UPAB: 20040611
NOVELTY - Methylenedioxy class of amphetamine derivatives are new.
DETAILED DESCRIPTION - Methylenedioxy class of amphetamine derivatives of formula (I) are new.
R1 = 2-6C alkyl;
R2 = H, alkyl or a protecting group;
R3 = optionally substituted alkyl;
Z' = -L-X-Q;
L = 1-15C atoms and 0-6 heteroatoms;
X = -O-, -CO-, -NR4-, -S-, -C(=NH)O-, -NH(CO)-, -NH(CO)NH-, -NH(CS)-, NH(CS)NH-, -O(CO)NH-, -NH(C=NH)- or maleimidothioether;
R4 = H or alkyl; and
Q = H, hydroxyl, leaving group, macromolecular carrier or a label.
INDEPENDENT CLAIMS are included for the following:
(1) an antibody specific for 3,4-methylenedioxy-N-ethylamphetamine (MDEA) or an analyte (A) comprising (I);
(2) a reagent kit comprising the antibody;
(3) production of an antibody comprising inoculating a host with an immunogen containing (I);
(4) detection of (A) in a sample comprising:
(i) contacting the sample with the antibody;
(ii) binding the antibody to the analyte; and
(iii) detecting an adduct formed.
USE - As an immunogen in the production of an antibody specific for ecstasy drugs. The antibody produced can be used either as a booster antibody to increase detection in an existing amphetamine or methamphetamine assay or as a separate **antibody** for **MDEA** in immunoassay for MD-class drugs.
ADVANTAGE - (I) when used in immunoassays are relatively sensitive to and specific for ecstasy drugs. Antibodies produced from (I) show particularly high recognition for the ecstasy drug MDEA, which is generally poorly detected by conventional immunoassays.
Dwg.0/8

Considered 04/21/04 MEC

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=> d que
L7            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  MDEA/CN
L14           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  3,4-METHYLENEDIOXYAMPHETAMINE
                /CN
L15           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  ECSTASY/CN
L16           3 SEA FILE=REGISTRY ABB=ON  PLU=ON  BDB/CN
L17           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 AND "3,4"
L18           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  MBDB/CN
L19           2 SEA FILE=REGISTRY ABB=ON  PLU=ON  MDPA/CN
L22           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 AND OCOC2/ESS
L23           7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 OR L15 OR L7 OR L18 OR
                L17 OR L22
L24          10 SEA FILE=HCAPLUS ABB=ON   PLU=ON  L23(L)?ANTIBOD?
L26         141 SEA FILE=HCAPLUS ABB=ON   PLU=ON  ?ANTIBOD?(5A)(MDA OR MDMA OR
                ECSTASY OR EVE OR MDEA OR BDB OR MBDB OR MDPA)
L27           7 SEA FILE=HCAPLUS ABB=ON   PLU=ON  L26 AND L23
L28          11 SEA FILE=HCAPLUS ABB=ON   PLU=ON  L24 OR L27

=> d l28 ibib ab hitind hitstr 1-11

L28  ANSWER 1 OF 11  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:331676  HCAPLUS
DOCUMENT NUMBER:          140:334030
TITLE:                    Derivatives, conjugates, and antibodies for
                          detecting ecstasy-class analytes
INVENTOR(S):              Hui, Raymond A.; Vitone, Stephen; Root, Richard Terry;
                          Baburina, Irina; Jordan, Sheri
PATENT ASSIGNEE(S):       Roche Diagnostics Corporation, USA
SOURCE:                   U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S.
                          Ser. No. 87,612.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     US 2004077021      A1   20040422       US 2003-622524   20030718
     US 2003170917      A1   20030911       US 2002-87612    20020301
     JP 2004123692      A2   20040422       JP 2003-49992    20030226
PRIORITY APPLN. INFO.:                  US 2002-87612    A2 20020301
OTHER SOURCE(S):          MARPAT 140:334030
AB   Compds. including haptens, intermediates, and immunogens that are useful
     in the production of antibodies specific for the methylenedioxy class of
     amphetamine derivs. are described.  Antibodies specific for the
     methylenedioxy class of amphetamine derivs., reagent kits containing
     antibodies specific for the methylenedioxy class of amphetamine derivs.,
     methods of producing antibodies specific for the methylenedioxy class of
     amphetamine derivs., and methods of detecting analytes including members
     of the methylenedioxy class of amphetamine derivs. are also described.
IC   ICM  G01N033-53
NCL  435007100
CC   4-2 (Toxicology)
     Section cross-reference(s): 1, 64
IT   Antigens
     RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic
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preparation); BIOL (Biological study); PREP (Preparation)
(conjugates; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Haptens
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Antibodies and Immunoglobulins
Thyroglobulin
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Forensic analysis
(drug; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Immunoassay
(enzyme-linked immunosorbent assay; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Hemocyanins
RL: RCT (Reactant); RACT (Reactant or reagent)
(keyhole limpet; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Antibodies and Immunoglobulins
RL: RCT (Reactant); RACT (Reactant or reagent)
(monoclonal; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT Albumins, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(serum; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT 681028-35-3DP, conjugates with keyhole limpet hemocyanin
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**MDMA** immunogen synthesis; derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT **82801-81-8**, 3,4-Methylenedioxy-N-ethylamphetamine
107447-03-0, 1-(3,4-Methylenedioxyphenyl)-2-butanamine
135795-90-3 590346-21-7
RL: ANT (Analyte); ANST (Analytical study)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT **42542-10-9**, **Ecstasy**
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT 681028-36-4DP, conjugates with keyhole limpet hemocyanin
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT 56-91-7, 4-Aminomethylbenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

IT 681028-37-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting

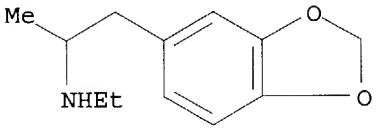
ecstasy-class analytes)

IT 590346-20-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

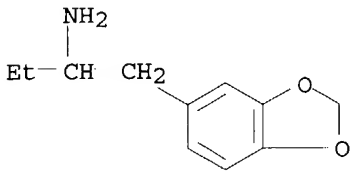
IT **4764-17-4P**, Methylenedioxyamphetamine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromobutyrate)

IT **82801-81-8**, 3,4-Methylenedioxy-N-ethylamphetamine
107447-03-0, 1-(3,4-Methylenedioxyphenyl)-2-butanamine
135795-90-3
RL: ANT (Analyte); ANST (Analytical study)
(derivs., conjugates, and **antibodies** for detecting **ecstasy**-class analytes)

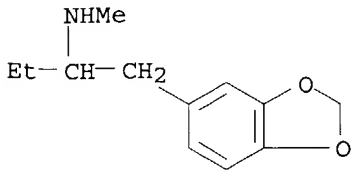
RN 82801-81-8 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-ethyl-α-methyl- (9CI) (CA INDEX NAME)



RN 107447-03-0 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl- (9CI) (CA INDEX NAME)

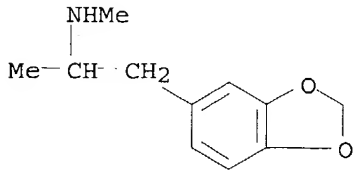


RN 135795-90-3 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl-N-methyl- (9CI) (CA INDEX NAME)

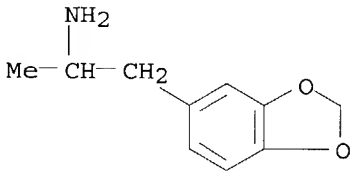


IT **42542-10-9, Ecstasy**
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting

ecstasy-class analytes)
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



IT **4764-17-4P**, Methylenedioxyamphetamine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with Et bromobutyrate)
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



L28 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:693233 HCAPLUS
DOCUMENT NUMBER: 139:207730
TITLE: Antibodies for detecting amphetamine derivatives, compounds useful in antibody production, reagent kits, and detection methods for amphetamine derivatives
INVENTOR(S): Hui, Raymond A.
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340981	A2	20030903	EP 2003-3298	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003175995	A1	20030918	US 2002-87469	20020301
JP 2004002316	A2	20040108	JP 2003-49924	20030226

PRIORITY APPLN. INFO.: US 2002-87469 A 20020301
OTHER SOURCE(S): MARPAT 139:207730
AB Compds. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of

amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

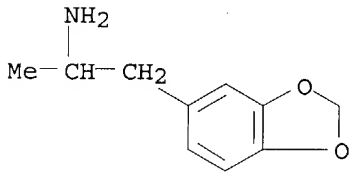
IC ICM G01N033-94
ICS C07K016-00; C07D317-58

CC 1-1 (Pharmacology)
Section cross-reference(s): 15, 28

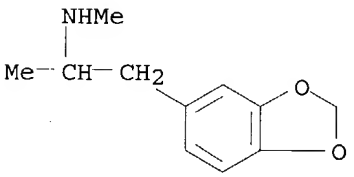
IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. **4764-17-4**, **MDA 42542-10-9**, **MDMA 42542-10-9D**, **Ecstasy**, derivs. **74698-36-5**, **MDPA 82801-81-8**, **MDEA 107447-03-0**, **BDB 135795-90-3**, **MBDB**
RL: ANT (Analyte); ANST (Analytical study)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **4764-17-4**, **MDA 42542-10-9**, **MDMA 42542-10-9D**, **Ecstasy**, derivs. **74698-36-5**, **MDPA 82801-81-8**, **MDEA 107447-03-0**, **BDB 135795-90-3**, **MBDB**
RL: ANT (Analyte); ANST (Analytical study)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

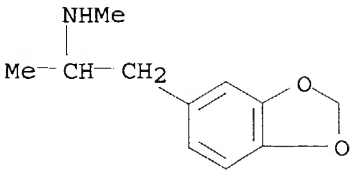
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



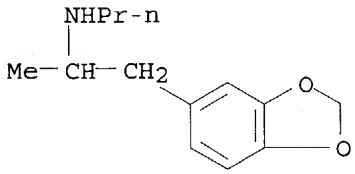
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



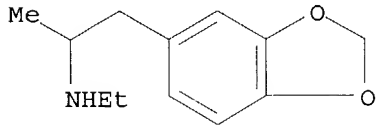
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



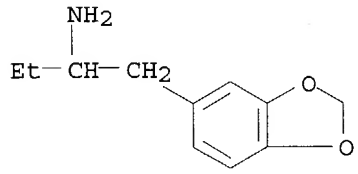
RN 74698-36-5 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl-N-propyl- (9CI) (CA INDEX NAME)



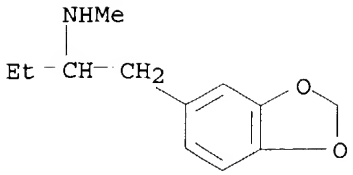
RN 82801-81-8 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-ethyl-α-methyl- (9CI) (CA INDEX NAME)



RN 107447-03-0 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl- (9CI) (CA INDEX NAME)



RN 135795-90-3 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl-N-methyl- (9CI) (CA INDEX NAME)



L28 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:693232 HCAPLUS
DOCUMENT NUMBER: 139:207729
TITLE: Amphetamine derivatives, antibodies to the derivatives, reagent kits, methods of producing the antibodies, and methods of detecting the derivatives
INVENTOR(S): Hui, Raymond A.; Root, Richard T.; Vitone, Stephan S.
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.
SOURCE: Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340980	A1	20030903	EP 2003-3297	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226

PRIORITY APPLN. INFO.: US 2002-87612 A 20020301
OTHER SOURCE(S): MARPAT 139:207729

AB Compds. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

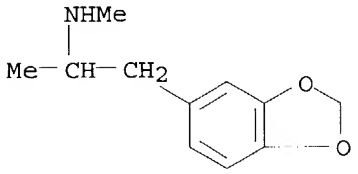
IC ICM G01N033-94
ICS A61K031-135; C07C211-26
CC 1-1 (Pharmacology)
Section cross-reference(s): 15, 28
IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. **42542-10-9**, **Ecstasy 42542-10-9D**, **Ecstasy**, derivs. **82801-81-8**, **MDEA**
RL: ANT (Analyte); ANST (Analytical study)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)
IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine **74698-36-5**, MDPA **107447-03-0**, BDB **135795-90-3**, MBDB

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

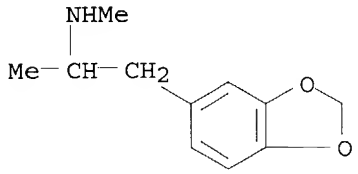
IT **4764-17-4P**, MDA
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **42542-10-9**, **Ecstasy 42542-10-9D**, **Ecstasy**, derivs. **82801-81-8**, **MDEA**
RL: ANT (Analyte); ANST (Analytical study)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

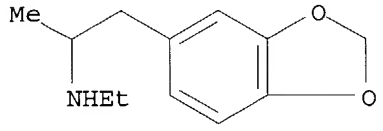
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



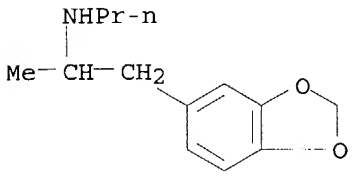
RN 82801-81-8 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-ethyl-α-methyl- (9CI) (CA INDEX NAME)



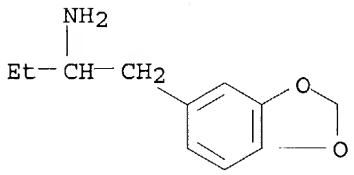
IT **74698-36-5**, MDPA **107447-03-0**, BDB **135795-90-3**, MBDB
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical

study); BIOL (Biological study)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

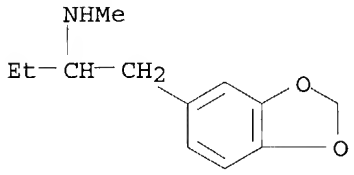
RN 74698-36-5 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl-N-propyl- (9CI) (CA INDEX NAME)



RN 107447-03-0 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl- (9CI) (CA INDEX NAME)

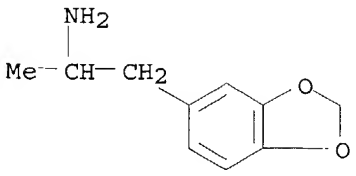


RN 135795-90-3 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl-N-methyl- (9CI) (CA INDEX NAME)



IT **4764-17-4P**, MDA
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:590958 HCAPLUS
DOCUMENT NUMBER: 139:132450
TITLE: Monoclonal and polyclonal antibodies for detecting and treating overdose, addiction and abuse of amphetamine or derivatives
INVENTOR(S): Pouletty, Philippe; Kusmierek, Jacques; Koralewski, Frederic; Galons, Herve; Blanchard, Dominique; Gadjou, Caroline
PATENT ASSIGNEE(S): Drugabuse Sciences, Inc., USA
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003061595	A2	20030731	WO 2003-US2076	20030122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003171435	A1	20030911	US 2002-57791	20020123

PRIORITY APPLN. INFO.: US 2002-57791 A 20020123
OTHER SOURCE(S): MARPAT 139:132450

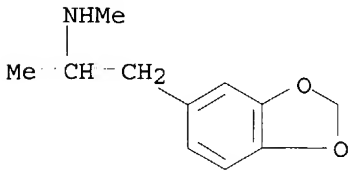
AB Hapten-carrier conjugates capable of eliciting anti-hapten antibodies in vivo to amphetamines are disclosed. Methods of preparing the hapten-carrier conjugates and therapeutic compns. are also disclosed. A therapeutic composition containing the hapten-carrier conjugate is useful in the treatment of addiction to amphetamines. Passive immunization using antibodies raised against conjugates of the instant invention also is disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs for treatment of amphetamine abuse.

IC ICM A61K
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 3, 4, 9
IT 300-62-9D, Amphetamine, derivs. 457-87-4, N-Ethylamphetamine 14116-06-4, 4-Methylthio-amphetamine **42542-10-9, Ecstasy**
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU

(Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(monoclonal and polyclonal **antibodies** for detecting and treating overdose, addiction and abuse of amphetamine or derivs.)

IT **42542-10-9, Ecstasy**
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(monoclonal and polyclonal **antibodies** for detecting and treating overdose, addiction and abuse of amphetamine or derivs.)

RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



L28 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:589502 HCAPLUS
DOCUMENT NUMBER: 139:133711
TITLE: Preparation of new amphetamine derivatives, antibodies against them and pharmaceutical compositions containing them
INVENTOR(S): Pouletty, Philippe; Kusmierek, Jacques; Koralewski, Frederic; Galons, Herve; Blanchard, Dominique; Gadjou, Caroline; Danger, Yannic
PATENT ASSIGNEE(S): Drug Abuse Sciences, Inc., USA
SOURCE: Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1331219	A1	20030730	EP 2002-290169	20020123

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: EP 2002-290169 20020123
OTHER SOURCE(S): CASREACT 139:133711; MARPAT 139:133711

AB Hapten-carrier conjugates, (S)- I [R1, R3 = H, C1-3-alkyl; R2 = H, C1-3-alkyl, polymethylene chain, (CH2)nCO2H; n = 1 - 6; R4, R6, R7 = H, halogen, OR9, SR9; R9 = H, C1-3-alkyl; R5 = H, polymethylene chain, (CH2)mR10; R10 = CO2H, SH, CONHR13SH, CONHCHR11SH; R13 = CH(CO2H)CH2, (CH2)m; m = 1 - 4, with the proviso that R1 = H, R2 = Me or R1 = Me, R2 = H and R5 ≠ polymethylene chain, (CH2)nCO2H], capable of eliciting anti-hapten antibodies in vivo to amphetamines are disclosed. Methods of preparing the hapten-carrier conjugates and therapeutic compns. are also disclosed. A therapeutic composition containing the hapten-carrier conjugate is useful in the treatment of addiction to amphetamines. Passive

immunization using antibodies raised against conjugates of the current invention is also disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs for treatment of amphetamine abuse.

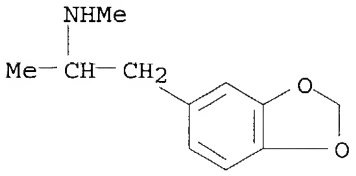
IC ICM C07C229-14
ICS C07C217-60; C07C323-60; C07K016-44; A61K039-00; A61K039-385; A61K039-395; C12N005-20; C12N005-10; C12N015-79

CC 31-2 (Alkaloids)
Section cross-reference(s): 1, 34, 63

IT 51-43-4, Epinephrine 51-61-6, 3-Hydroxytyramine, biological studies 64-13-1, 4-Methoxyamphetamine 299-42-3, Ephedrine 300-62-9, Amphetamine 457-87-4, N-Ethylamphetamine 3213-30-7 14116-06-4, 4-(Methylthio)amphetamine 14838-15-4, Norephedrine **42542-10-9**, **Ecstasy** 51018-28-1, Methylpseudoephedrine 113429-54-2, 4-Methoxymethamphetamine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of new amphetamine derivs., **antibodies** against them and pharmaceutical compns. containing them)

IT **42542-10-9**, **Ecstasy**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of new amphetamine derivs., **antibodies** against them and pharmaceutical compns. containing them)

RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)

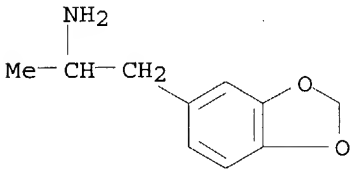


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

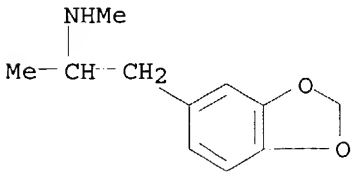
L28 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:492553 HCAPLUS
DOCUMENT NUMBER: 139:51621
TITLE: Monoclonal antibody antagonists for treating medical problems associated with d-amphetamine-like drugs
INVENTOR(S): Owens, Samuel M.; Carroll, Frank Ivy; Abraham, Philip
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 839,549.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003119083	A1	20030626	US 2002-255462	20020926
US 2001051158	A1	20011213	US 2001-839549	20010420

US 6669937 B2 20031230
PRIORITY APPLN. INFO.: US 2000-198902P P 20000420
US 2001-839549 A2 20010420
OTHER SOURCE(S): MARPAT 139:51621
AB The present invention provides synthetic immunochem. haptens for the generation of antibodies that are designed to recognize the common mol. features of d-methamphetamine-like abused stimulants with insignificant cross-reactivity to endogenous substrates (e.g. dopamine) or over-the-counter medications (e.g. l-methamphetamine, pseudoephedrine, phenylpropanolamine and ephedrine). The haptens comprise compound I [wherein R = ZR2COOR1; Z = O or S or single bond between R2 and ortho, meta, para attachment sites; R2 = alkyl, alkenyl, or alkynyl wherein the alkyl chain optionally contains O or NR3; R1 = H or R4; R3 = alkyl; and R4 = -CH2CH2CN, 4-nitrophenyl, pentafluorophenyl, succinimide, or 2,3,5-trichlorophenyl]. These monoclonal antibodies and their antigen binding fragments are useful in treatment plans for abuse, addiction, and overdose.
IC ICM G01N033-53
ICS G01N033-537; G01N033-543; C07K016-42
NCL 435007920; 530388100; 424130100
CC 15-3 (Immunochemistry)
Section cross-reference(s): 1, 25
IT **4764-17-4**, 3,4-Methylenedioxyamphetamine **42542-10-9**, 3,4-Methylenedioxymethamphetamine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(monoclonal **antibodies** to d-methamphetamine and its analogs for immunotherapy of abuse, intoxication, and addiction)
IT **4764-17-4**, 3,4-Methylenedioxyamphetamine **42542-10-9**, 3,4-Methylenedioxymethamphetamine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(monoclonal **antibodies** to d-methamphetamine and its analogs for immunotherapy of abuse, intoxication, and addiction)
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



L28 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:488680 HCAPLUS
DOCUMENT NUMBER: 139:48560
TITLE: Method and kit for detecting, or determining, 3,4-methylenedioxymethamphetamine
INVENTOR(S): Mcconnell, Robert Ivan; Benchikh, El Ouard; Fitzgerald, Stephen P.; Lamont, John Victor
PATENT ASSIGNEE(S): Randox Laboratories Ltd., UK
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

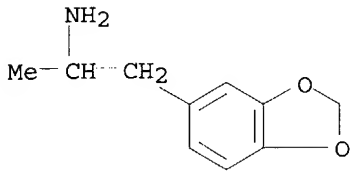
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1321772	A1	20030625	EP 2002-80462	20021217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1429844	A	20030716	CN 2002-139960	20021220
US 2004121400	A1	20040624	US 2002-326742	20021220

PRIORITY APPLN. INFO.: EP 2001-205058 A 20011220
OTHER SOURCE(S): MARPAT 139:48560

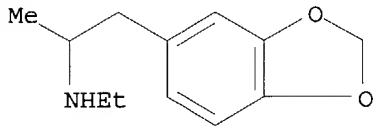
AB The present invention describes a hapten derivatized with a crosslinker at the N-position of 3,4-methylenedioxymethamphetamine (MDMA). The present invention provides an immunogen comprising the aforementioned hapten, coupled to an antigenicity-conferring carrier material, as well as, conjugates comprising the aforementioned hapten covalently bonded to a detectable labeling agent. In addition, the present invention concerns antibodies raised against the aforementioned immunogens. Finally, the present invention relates to methods and kits for detecting or determining MDMA and N-alkylated derivs. of methylenedioxyamphetamine in biol. fluids. The antibodies of the present invention do not significantly cross-react with amphetamine and methamphetamine. Haptens and immunogens and horseradish peroxidase-labeled hapten reagents were prepared from (3,4-methylenedioxy)phenylacetic acid for the development of competitive ELISAs for MDMA.

IC ICM G01N033-94
CC 4-1 (Toxicology)
Section cross-reference(s): 15, 28
IT 90-82-4, (+)-Pseudoephedrine 156-34-3 299-42-3, (-)-Ephedrine 321-97-1, (-)-Pseudoephedrine 321-98-2, (+)-Ephedrine **4764-17-4**, **MDA 82801-81-8**, 3,4-Methylenedioxyethylamphetamine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**antibody** cross-reactivity with; immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT **4764-17-4D**, Methylenedioxyamphetamine, N-alkylated derivs.
RL: ANT (Analyte); ANST (Analytical study)
(immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT **42542-10-9P**, 3,4-Methylenedioxymethamphetamine
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT **4764-17-4**, **MDA 82801-81-8**, 3,4-Methylenedioxyethylamphetamine

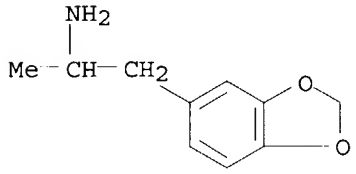
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**antibody** cross-reactivity with; immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



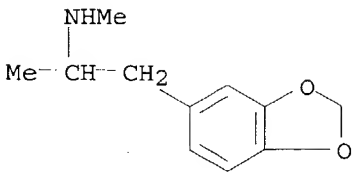
RN 82801-81-8 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-ethyl-α-methyl- (9CI) (CA INDEX NAME)



IT **4764-17-4D**, Methylenedioxyamphetamine, N-alkylated derivs.
RL: ANT (Analyte); ANST (Analytical study)
(immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



IT **42542-10-9P**, 3,4-Methylenedioxymethamphetamine
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



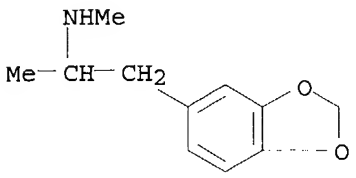
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:291807 HCAPLUS
DOCUMENT NUMBER: 139:159821
TITLE: Altered gene expression in frontal cortex and midbrain of 3,4-methylenedioxymethamphetamine (MDMA) treated mice: Differential regulation of GABA transporter subtypes
AUTHOR(S): Peng, Weiping; Simantov, Rabi
CORPORATE SOURCE: Department of Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel
SOURCE: Journal of Neuroscience Research (2003), 72(2), 250-258
CODEN: JNREDK; ISSN: 0360-4012
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Changes in gene expression were examined in the brain of mice treated with a drug of abuse, 3,4-methylenedioxymethamphetamine (MDMA, also called Ecstasy). Frontal cortex and midbrain mRNA, analyzed by differential display polymerase chain reaction (DD-PCR) method, showed an altered expression of several cDNAs, 11 of which were isolated, cloned and sequenced. The sequence of one MDMA-induced mRNA corresponds (99.3%) to the mouse γ-amino butyric acid (GABA) transporter 1 (mGAT1). The established involvement of GABA neurotransmission in the activity of several abused drugs prompted us to focus herein on MDMA effect on the GABA transporter gene family. Semi-quant. PCR anal. with primers selective to the reported mGAT1 sequence confirmed that MDMA treatment increased mGAT1 expression. Time-course study of the expression of the three GABA transporter subtypes showed that MDMA induced a differential temporal activation of mGAT1 and mGAT4, but had no effect on mGAT2. Quant. real-time PCR further proved the increased expression of mGAT1 and mGAT4 upon MDMA treatment. Western immunoblotting with anti-GAT1 **antibodies** showed that **MDMA** also increased GAT1 protein levels, suggesting that neurotransmission of GABA was altered. MDMA effect was also verified in serotonin transporter knockout (-/-) mice that are insensitive behaviorally to MDMA; the drug did not increase GAT1 protein level in these mutants. In mice, tiagabine and NO-711, inhibitors of GABA transporters, restrained MDMA-induced acute toxicity and death. These results should facilitate novel approaches to prevent deleterious effects, including fatality, induced by MDMA and similar abused psychostimulants.

CC 1-11 (Pharmacology)
IT **42542-10-9**, 3,4-Methylenedioxymethamphetamine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(MDMA toxicity and brain GABA transporters in relation to prevention of MDMA deleterious effects)
IT **42542-10-9**, 3,4-Methylenedioxymethamphetamine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (MDMA toxicity and brain GABA transporters in relation to prevention of MDMA deleterious effects)
RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:242183 HCAPLUS
DOCUMENT NUMBER: 138:270293
TITLE: Vaccine compositions comprising anti-CD4 antibody or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses
INVENTOR(S): Bachmann, Martin F.; Storni, Tazio; Lechner, Franziska
PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.
SOURCE: PCT Int. Appl., 243 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024480	A2	20030327	WO 2002-IB4252	20020916
WO 2003024480	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003091593	A1	20030515	US 2002-243739	20020916
EP 1425040	A2	20040609	EP 2002-783338	20020916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

PRIORITY APPLN. INFO.: US 2001-318967P P 20010914
WO 2002-IB4252 W 20020916

AB The invention relates to the finding that stimulation of antigen presenting cell (APC) activation using substances such as anti-CD40 antibodies or DNA oligomers rich in non-methylated C and G (CpGs) can

dramatically enhance the specific T cell response obtained after vaccination with recombinant virus like particles (VLPs) coupled, fused or otherwise attached to antigens. While vaccination with recombinant VLPs fused to a cytotoxic T cell (CTL) epitope of lymphocytic choriomeningitis virus induced low levels cytolytic activity only and did not induce efficient anti-viral protection, VLPs injected together with anti-CD40 antibodies or CpGs induced strong CTL activity and full anti-viral protection for treating tumors and chronic viral diseases. Thus, stimulation of APC-activation through antigen presenting cell activators such as anti-CD40 antibodies or CpGs can exhibit a potent adjuvant effect for vaccination with VLPs coupled, fused or attached otherwise to antigens.

IC ICM A61K039-00

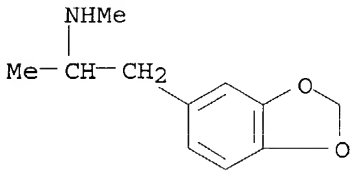
CC 15-3 (Immunochemistry)
Section cross-reference(s): 2, 3, 63

IT 50-36-2, Cocaine 50-37-3, LSD 54-04-6, Mescaline 54-11-5, Nicotine 57-27-2, Morphium, biological studies 76-57-3, Codeine 113-45-1, Methylphenidate 300-62-9, Amphetamine 437-38-7, Fentanyl 520-52-5, Psilocybin 537-46-2, Methamphetamine 561-27-3, Heroin 1972-08-3, Tetrahydrocannabinol 9001-92-7, Protease 9002-10-2, Tyrosinase 24939-03-5, Poly-(I:C) 26700-94-7, Poly-(I:C) **42542-10-9**, Methylenedioxymethamphetamine 65988-71-8, GD2 151705-84-9 502953-36-8 502953-37-9 502953-38-0 502953-39-1 502953-40-4 502953-41-5 502953-42-6 502953-43-7 502953-44-8 502953-45-9
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiviral and antitumor vaccines comprising anti-CD4 **antibody** or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses and activation of antigen-presenting cells)

IT **42542-10-9**, Methylenedioxymethamphetamine
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiviral and antitumor vaccines comprising anti-CD4 **antibody** or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses and activation of antigen-presenting cells)

RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



L28 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:798299 HCAPLUS

DOCUMENT NUMBER: 135:343302

TITLE: Monoclonal antibody antagonists for treating medical problems associated with d-amphetamine-like drugs

INVENTOR(S): Owens, Samuel M.; Carroll, Frank Ivy; Abraham, Philip

PATENT ASSIGNEE(S): Board of Trustees of the University of Arkansas, USA

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

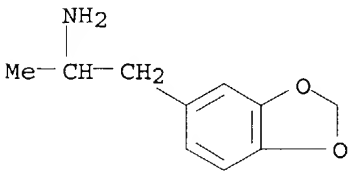
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081424	A1	20011101	WO 2001-US12899	20010420

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

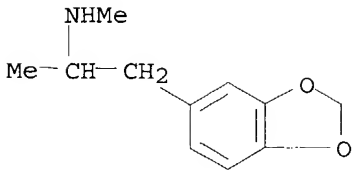
PRIORITY APPLN. INFO.: US 2000-198902P P 20000420
OTHER SOURCE(S): MARPAT 135:343302

AB The authors disclose the generation of antibodies designed to recognize the common mol. features of d-methamphetamine-like abused stimulants. The antibodies will have insignificant cross-reactivity with endogenous substrates (e.g. dopamine) or over-the-counter medications (e.g. l-methamphetamine, pseudoephedrine, phenylpropanolamine and ephedrine). These antibodies, and their antigen binding fragments, are useful in treatment plans for recovering addicts, in emergency room settings for rapidly reversing a drug overdose, in protection of fetuses or fetus from drug-abusing pregnant mothers or in a psychiatric setting to reduce the exacerbation of psychotic disorders caused by stimulant drugs.

IC ICM C07K016-44
ICS C07K017-06; C07C229-02; C07D207-09
CC 15-3 (Immunochemistry)
Section cross-reference(s): 1, 31
IT 51-64-9 537-46-2, Methamphetamine **4764-17-4**, 3,4-Methylenedioxyamphetamine **42542-10-9**, 3,4-Methylenedioxymethamphetamine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(monoclonal **antibodies** to amphetamine and related compds.)
IT **4764-17-4**, 3,4-Methylenedioxyamphetamine **42542-10-9**, 3,4-Methylenedioxymethamphetamine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(monoclonal **antibodies** to amphetamine and related compds.)
RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)



RN 42542-10-9 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:71776 HCAPLUS
DOCUMENT NUMBER: 112:71776
TITLE: Enzyme linked immunosorbent assay (ELISA) using monoclonal antibody to detect methamphetamine in urine and hair
AUTHOR(S): Nakahara, Yuji; Ishigami, Akiko; Takeda, Yasushi; Usagawa, Takashi; Uda, Taizo
CORPORATE SOURCE: Natl. Inst. Hyg. Sci., Tokyo, 158, Japan
SOURCE: Eisei Kagaku (1989), 35(5), 333-8
CODEN: ESKGA2; ISSN: 0013-273X
DOCUMENT TYPE: Journal
LANGUAGE: English

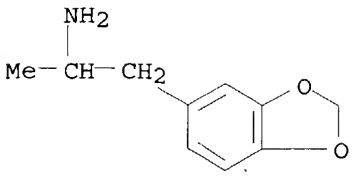
AB The cross reactivity of monoclonal antibody of methamphetamine (I) against ephedrine, methylephedrine, methoxyphenamine, phentermine, norephedrine, N,N-dibenzylenediamine, p-methoxyamphetamine, p-hydroxymethamphetamine, p-methoxymethamphetamine, methylenedioxyamphetamine, labetalol, and other related compds. was 0.1, 1.5, 0.2, 0.4, <0.1, 0.5, 0.2, 1.3, 3.3, 0.9, 2.6, and <1.0%, resp., but that against dimethylamphetamine was 150%. The detection limit of I in urine was 0.2 μg/mL at the 95% confidence limit and the working range 0.3-30 μg/mL. The coeffs. of variation of the assay for I in urine at 1 μg/mL were 5.68% for within-run and 8.26% for between-run. The correlation coefficient between this assay and GC-mass spectrometry method of 48 urine specimens was 0.9934. The assay required 5 μL of specimen in 50 μL of total assay volume, and took about 1 h for 96 specimens. The assay could also be applied to hair anal. to monitor I abuse history.

CC 4-2 (Toxicology)

IT 54-04-6, Mescaline 64-13-1 93-30-1, Methoxyphenamine 103-86-6, p-Hydroxyamphetamine 122-09-8, Phentermine 140-28-3, Benzathine 299-42-3, Ephedrine 300-62-9, Amphetamine 365-26-4, p-Hydroxyephedrine 370-14-9, p-Hydroxymethamphetamine 492-41-1, Norephedrine 552-79-4, Methylephedrine 771-91-5, p-Hydroxynorephedrine 4075-96-1, Dimethylamphetamine **4764-17-4**, Methylenedioxyamphetamine 15588-95-1, STP 22331-70-0 36894-69-6, Labetalol
RL: BIOL (Biological study)
(methamphetamine cross reactivity with, in detection by monoclonal **antibody**-based ELISA)

IT **4764-17-4**, Methylenedioxyamphetamine
RL: BIOL (Biological study)
(methamphetamine cross reactivity with, in detection by monoclonal **antibody**-based ELISA)

RN 4764-17-4 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, α-methyl- (9CI) (CA INDEX NAME)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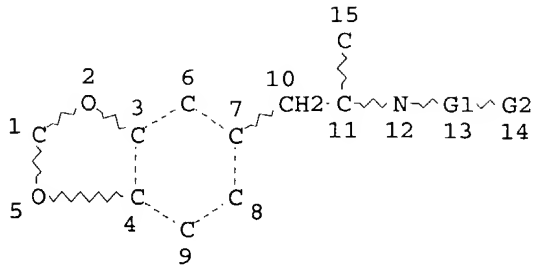

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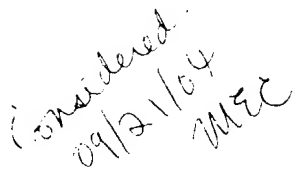


NH=C~O
20 @21 22

REP G1=(1-20) A
VAR G2=O/16/NH/18/S/21
NODE ATTRIBUTES:
CONNECT IS E3 RC AT 11
CONNECT IS E1 RC AT 19
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L3 740 SEA FILE=REGISTRY SSS FUL L1
L8 53 SEA FILE=**HCAPLUS** ABB=ON PLU=ON L3 AND (?ANTIBOD? OR ?IMMUNOGE N? OR ?HAPTEN? OR ?ANTIGEN? OR ?ASSAY? OR LABEL? OR ?TRACER? OR ?OVALBUM? OR ?POLYSACC? OR ?POLYLYS? OR ?KEYHOLE LIMPET? OR ?BOVINE SER? OR ?BOVINE THYRO? OR KLH OR BSA OR BTG OR ?HEMOCYANIN? OR ?GLOBULIN? OR ?ALBUMIN?)

=> d l8 ibib ab hitind hitstr 1-53

L8 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:331676 HCAPLUS
DOCUMENT NUMBER: 140:334030
TITLE: Derivatives, conjugates, and **antibodies** for detecting ecstasy-class analytes
INVENTOR(S): Hui, Raymond A.; Vitone, Stephen; Root, Richard Terry; Baburina, Irina; Jordan, Sheri
PATENT ASSIGNEE(S): Roche Diagnostics Corporation, USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 87,612.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2004077021	A1	20040422	US 2003-622524	20030718
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226

PRIORITY APPLN. INFO.: US 2002-87612 A2 20020301
OTHER SOURCE(S): MARPAT 140:334030

AB Compds. including **haptens**, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

IC ICM G01N033-53
NCL 435007100
CC 4-2 (Toxicology)
Section cross-reference(s): 1, 64
ST **immunoassay** ecstasy type drug forensic
IT **Antigens**
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(conjugates; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Haptens**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Antibodies** and **Immunoglobulins**
Thyroglobulin
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT Forensic analysis
(drug; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Immunoassay**
(enzyme-linked immunosorbent **assay**; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Hemocyanins**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**keyhole limpet**; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Antibodies** and **Immunoglobulins**
RL: RCT (Reactant); RACT (Reactant or reagent)
(monoclonal; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **Albumins**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(serum; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT **681028-35-3DP**, conjugates with **keyhole limpet hemocyanin**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(MDMA **immunogen** synthesis; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
IT 82801-81-8, 3,4-Methylenedioxy-N-ethylamphetamine 107447-03-0,

1-(3,4-Methylenedioxyphenyl)-2-butanamine 135795-90-3 590346-21-7
RL: ANT (Analyte); ANST (Analytical study)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT 42542-10-9, Ecstasy
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT 681028-36-4DP, conjugates with **keyhole limpet hemocyanin**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT 56-91-7, 4-Aminomethylbenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT 681028-37-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT 590346-20-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

IT **590346-13-7P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis)

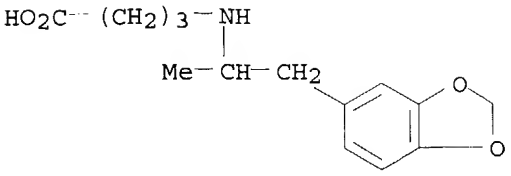
IT **590346-14-8P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydroxysuccinimide reaction)

IT **590346-15-9P** 590346-19-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and **immunogen** preparation from)

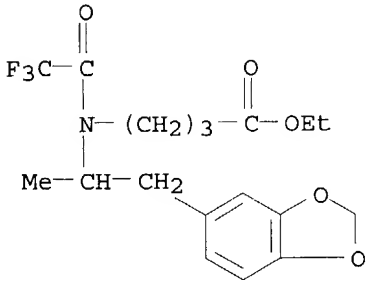
IT **590346-11-5P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with trifluoroacetic anhydride)

IT **681028-35-3DP**, conjugates with **keyhole limpet hemocyanin**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(MDMA **immunogen** synthesis; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)

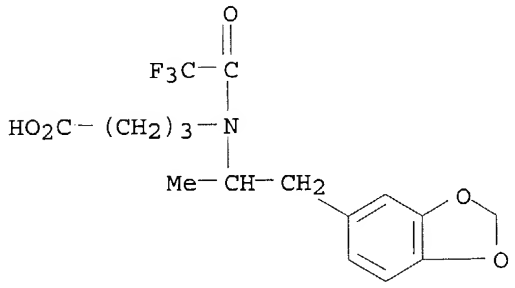
RN 681028-35-3 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]- (9CI) (CA INDEX NAME)



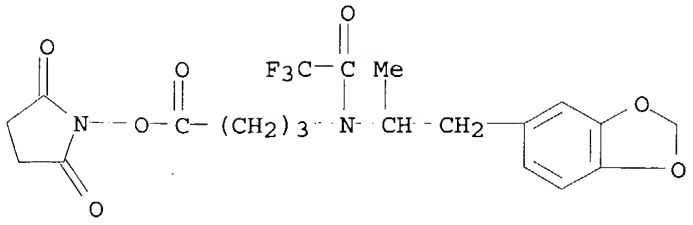
IT **590346-13-7P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis)
RN 590346-13-7 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



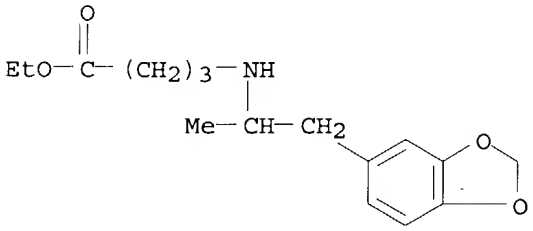
IT **590346-14-8P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydroxysuccinimide reaction)
RN 590346-14-8 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]- (9CI) (CA INDEX NAME)



IT **590346-15-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and **immunogen** preparation from)
RN 590346-15-9 HCAPLUS
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



IT **590346-11-5P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with trifluoroacetic anhydride)
RN 590346-11-5 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:931192 HCAPLUS
DOCUMENT NUMBER: 139:391355
TITLE: Combination of a beta-2 adrenoceptor agonists and an amino sugars and their use for the treatment of immunomodulatory disorders
INVENTOR(S): Weidner, Morten Sloth
PATENT ASSIGNEE(S): Astion Development A/s, Den.
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003097073	A1	20031127	WO 2003-DK263	20030422

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DK 2002-586 A 20020419
US 2002-373615P P 20020419

AB The invention relates to combinations of an aminosugar and a beta-2 adrenoceptor agonist, such as salbutamol, for the treatment of diseases associated with hypersensitivity and inflammation, in particular hypersensitivity skin diseases. The aminosugar is preferably a monosaccharide derivative

IC ICM A61K031-726
ICS A61K045-06; A61P029-00; A61K031-135; A61K031-167

CC 1-7 (Pharmacology)
Section cross-reference(s): 33, 63

IT **Antibodies** and **Immunoglobulins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgE; combination of β2 adrenoceptor agonists and amino sugars and their use for treatment of immunomodulatory disorders)

IT Carbohydrates, biological studies
Monosaccharides
Oligosaccharides, biological studies
Polysaccharides, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes with β2 adrenoceptor agonists; combination of β2 adrenoceptor agonists and amino sugars and their use for treatment of immunomodulatory disorders)

IT **Polysaccharides**, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes, with β2 adrenoceptor agonists; combination of β2 adrenoceptor agonists and amino sugars and their use for treatment of immunomodulatory disorders)

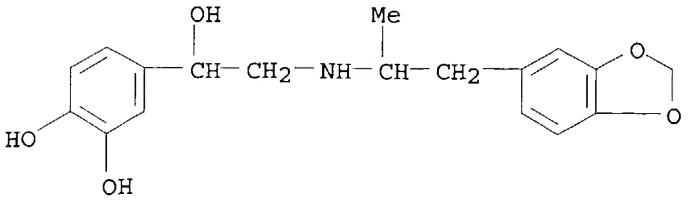
IT 50-98-6D, Ephedrine hydrochloride, complexes with amino sugars 51-43-4D, Epinephrine, complexes with amino sugars 66-84-2D, Glucosamine hydrochloride, complexes with β2 adrenoceptor agonists 93-30-1D, Methoxyphenamine, complexes with amino sugars **136-70-9D**, Protokylol, complexes with amino sugars 299-42-3D, Ephedrine, complexes with amino sugars 497-75-6D, Dioxethedrine, complexes with amino sugars 530-08-5D, Isoetarine, complexes with amino sugars 536-24-3D, Ethylnorepinephrine, complexes with amino sugars 586-06-1D, Metaproterenol, complexes with amino sugars 1772-03-8D, Galactosamine hydrochloride, complexes with β2 adrenoceptor agonists 1811-31-0D, N-Acetylgalactosamine, complexes with β2 adrenoceptor agonists 1944-10-1D, Fenoterol hydrochloride, complexes with amino sugars 1944-12-3D, Fenoterol hydrobromide, complexes with amino sugars 3198-07-0D, complexes with amino sugars 3215-70-1D, Hexoprenaline, complexes with amino sugars 3416-24-8D, Glucosamine, complexes with β2 adrenoceptor agonists 3615-17-6D, N-Acetylmannosamine, complexes with β2 adrenoceptor agonists 3811-25-4D, Clorprenaline, complexes with amino sugars 5505-63-5D, complexes with β2 adrenoceptor agonists 5588-10-3D, Methoxyphenamine hydrochloride, complexes with amino sugars 5588-10-3D, Methoxyphenamine hydrochloride, complexes with β2 adrenoceptor agonists 7104-40-7D, Metaproterenol hydrochloride, complexes with amino sugars 7512-17-6D, N-Acetylglucosamine, complexes with β2 adrenoceptor agonists 7535-00-4D, Galactosamine, complexes with β2 adrenoceptor agonists 7681-79-0D, Etafedrine, complexes with amino sugars 7683-59-2D, Isoproterenol, complexes with amino sugars 13055-82-8D, Reproterol hydrochloride, complexes with β2 adrenoceptor agonists 13392-18-2D, Fenoterol, complexes with amino sugars 13642-52-9D, Soterenol, complexes with amino sugars 14307-02-9D, Mannosamine, complexes with β2 adrenoceptor agonists 18559-59-6D,

complexes with amino sugars 18559-94-9D, Salbutamol, complex with glucosamine sulfate 18559-94-9D, Salbutamol, complexes with amino sugars 21898-19-1D, Clenbuterol hydrochloride, complexes with amino sugars 23031-25-6D, Terbutaline, complexes with amino sugars 23031-32-5D, Terbutaline sulfate, complexes with amino sugars 23239-51-2D, Ritodrine hydrochloride, complexes with amino sugars 23239-51-2D, Ritodrine hydrochloride, complexes with β2 adrenoceptor agonists 26652-09-5D, Ritodrine, complexes with amino sugars 29031-19-4D, Glucosamine sulfate, complexes with β2 adrenoceptor agonists 30392-40-6D, Bitolterol, complexes with amino sugars 30392-41-7D, Bitolterol mesylate, complexes with amino sugars 30418-38-3D, Tretoquinol, complexes with amino sugars 31842-61-2D, Rimiterol hydrobromide, complexes with β2 adrenoceptor agonists 32266-10-7D, Hexoprenaline sulfate, complexes with amino sugars 32953-89-2D, Rimiterol, complexes with amino sugars 34866-47-2D, Carbuterol, complexes with amino sugars 37148-27-9D, Clenbuterol, complexes with amino sugars 38029-10-6D, Pirbuterol dihydrochloride, complexes with amino sugars 38677-81-5D, Pirbuterol, complexes with amino sugars 41570-61-0D, Tulobuterol, complexes with amino sugars 43229-80-7D, Formoterol fumarate, complexes with amino sugars 51022-70-9D, Salbutamol sulfate, complexes with β2 adrenoceptor agonists 54063-54-6D, Reproterol, complexes with amino sugars 54240-36-7D, complexes with amino sugars 56341-08-3D, Mabuterol, complexes with amino sugars 56776-01-3D, Tulobuterol hydrochloride, complexes with amino sugars 65652-44-0D, Pirbuterol acetate, complexes with β2 adrenoceptor agonists 72332-33-3D, Procaterol, complexes with amino sugars 73573-87-2D, Formoterol, complexes with amino sugars 76596-57-1D, Broxaterol, complexes with amino sugars 81732-46-9D, Bambuterol hydrochloride, complexes with amino sugars 81732-65-2D, Bambuterol, complexes with amino sugars 86197-47-9D, Dopexamine, complexes with amino sugars 86484-91-5D, Dopexamine hydrochloride, complexes with amino sugars 89365-50-4D, Salmeterol, complexes with amino sugars 91674-26-9D, Glucosamine 6 sulfate, complexes with β2 adrenoceptor agonists 94749-08-3D, Salmeterol xinafoate, complexes with amino sugars 481649-97-2D, complexes with β2 adrenoceptor agonists 481649-98-3D, complexes with β2 adrenoceptor agonists 499764-05-5D, complexes with β2 adrenoceptor agonists 536741-38-5D, complexes with β2 adrenoceptor agonists 625857-82-1D, complexes with β2 adrenoceptor agonists
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination of β2 adrenoceptor agonists and amino sugars and their use for treatment of immunomodulatory disorders)

IT **136-70-9D**, Protokylol, complexes with amino sugars
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination of β2 adrenoceptor agonists and amino sugars and their use for treatment of immunomodulatory disorders)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:693233 HCAPLUS
DOCUMENT NUMBER: 139:207730
TITLE: **Antibodies** for detecting amphetamine derivatives, compounds useful in **antibody** production, reagent kits, and detection methods for amphetamine derivatives
INVENTOR(S): Hui, Raymond A.
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340981	A2	20030903	EP 2003-3298	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003175995	A1	20030918	US 2002-87469	20020301
JP 2004002316	A2	20040108	JP 2003-49924	20030226

PRIORITY APPLN. INFO.: US 2002-87469 A 20020301
OTHER SOURCE(S): MARPAT 139:207730
AB Compds. including **haptens**, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.
IC ICM G01N033-94
ICS C07K016-00; C07D317-58
CC 1-1 (Pharmacology)
Section cross-reference(s): 15, 28
ST amphetamine deriv **immunogen** prepn **immunoassay** **antibody**
IT **Immunoassay**
Test kits
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
IT **Antibodies** and **Immunoglobulins**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
IT **Albumins**, biological studies
Globulins, biological studies
Hemocyanins

Macromolecular compounds
Peptides, biological studies
Polysaccharides, biological studies
Proteins
Thyroglobulin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(conjugates; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **Immunoassay**
(enzyme-linked immunosorbent **assay**; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **Antigens**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**immunogens**; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **Antibodies** and **Immunoglobulins**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **Albumins**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(serum, conjugates; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. 4764-17-4, MDA 42542-10-9, MDMA 42542-10-9D, Ecstasy, derivs. 74698-36-5, MDPA 82801-81-8, MDEA 107447-03-0, BDB 135795-90-3, MBDB
RL: ANT (Analyte); ANST (Analytical study)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT 590346-23-9D, **BSA** conjugates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **590346-15-9DP**, carrier protein conjugates 590346-19-3DP, carrier protein conjugates
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT 51-63-8 56-91-7, 4-(Aminomethyl)benzoic acid 74-96-4, Ethyl bromide 108-30-5, Succinic anhydride, reactions 407-25-0, Trifluoroacetic anhydride 2969-81-5, Ethyl 4-bromobutyrate 6066-82-6, N-Hydroxysuccinimide 590346-12-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(**antibodies** for detecting amphetamine derivs., compds. for

antibody production, reagent kits, and detection methods for amphetamine derivs.)

IT 33817-11-7P **590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P** 590346-16-0P 590346-17-1P 590346-18-2P 590346-19-3P 590346-20-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

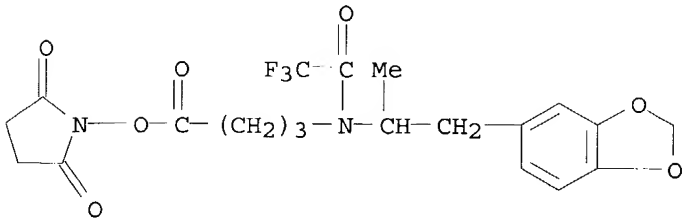
IT 590346-21-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 537-46-2 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(cross-reactivity; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

IT **590346-15-9DP**, carrier protein conjugates
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

RN 590346-15-9 HCAPLUS

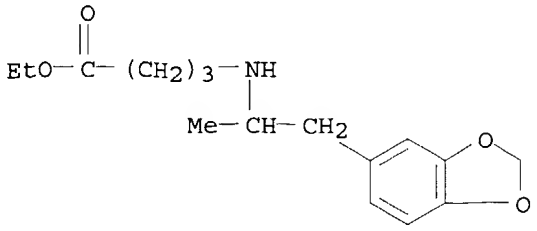
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



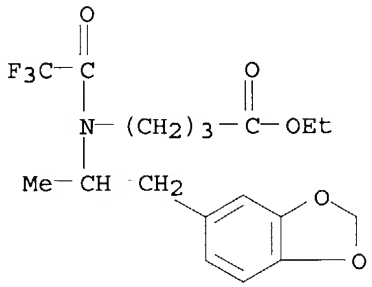
IT **590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)

RN 590346-11-5 HCAPLUS

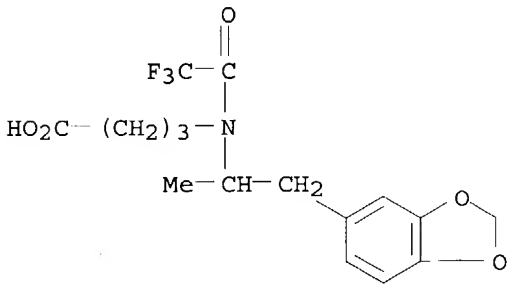
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



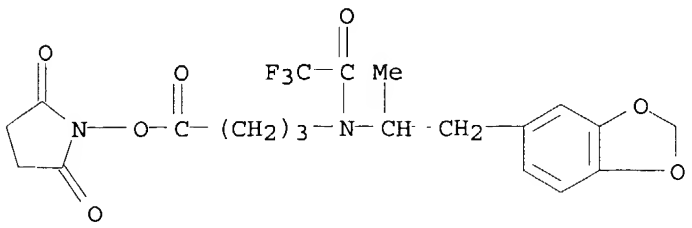
RN 590346-13-7 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 590346-14-8 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]- (9CI) (CA INDEX NAME)



RN 590346-15-9 HCAPLUS
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



L8 ANSWER 4 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:693232 HCAPLUS
DOCUMENT NUMBER: 139:207729
TITLE: Amphetamine derivatives, **antibodies** to the derivatives, reagent kits, methods of producing the **antibodies**, and methods of detecting the derivatives
INVENTOR(S): Hui, Raymond A.; Root, Richard T.; Vitone, Stephan S.
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.
SOURCE: Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340980	A1	20030903	EP 2003-3297	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226

PRIORITY APPLN. INFO.: US 2002-87612 A 20020301
OTHER SOURCE(S): MARPAT 139:207729
AB Compds. including **haptens**, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.
IC ICM G01N033-94
ICS A61K031-135; C07C211-26
CC 1-1 (Pharmacology)
Section cross-reference(s): 15, 28
ST amphetamine deriv **immunogen** prepn **immunoassay** **antibody**
IT **Immunoassay**
Test kits
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)
IT **Antibodies** and **Immunoglobulins**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)
IT **Albumins**, biological studies
Globulins, biological studies
Hemocyanins
Macromolecular compounds
Peptides, biological studies
Polysaccharides, biological studies
Proteins

Thyroglobulin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(conjugates; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **Immunoassay**
(enzyme-linked immunosorbent **assay**; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **Antigens**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**immunogens**; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **Antibodies** and **Immunoglobulins**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **Albumins**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(serum, conjugates; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. 42542-10-9, Ecstasy 42542-10-9D, Ecstasy, derivs. 82801-81-8, MDEA
RL: ANT (Analyte); ANST (Analytical study)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 590346-44-4D, **BSA** conjugates 590346-45-5D, **BSA** conjugates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **590346-15-9DP**, carrier protein conjugates 590346-19-3DP, carrier protein conjugates
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 51-63-8 56-91-7, 4-(Aminomethyl)benzoic acid 74-96-4, Ethyl bromide 108-30-5, Succinic anhydride, reactions 407-25-0, Trifluoroacetic anhydride 2969-81-5, Ethyl 4-bromobutyrate 6066-82-6, N-Hydroxysuccinimide 590346-12-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 33817-11-7P **590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P** 590346-16-0P 590346-17-1P 590346-18-2P 590346-19-3P 590346-20-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 590346-21-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

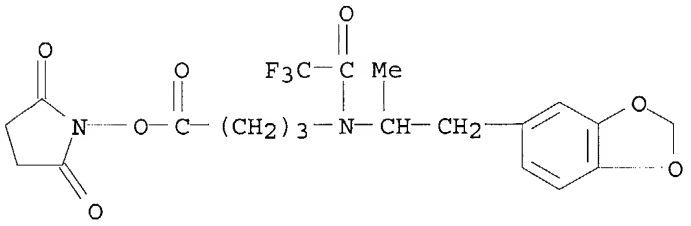
IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine 74698-36-5, MDPA 107447-03-0, BDB 135795-90-3, MBDB
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 4764-17-4P, MDA
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **590346-15-9DP**, carrier protein conjugates
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

RN 590346-15-9 HCAPLUS

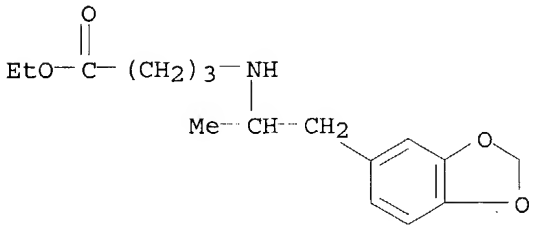
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



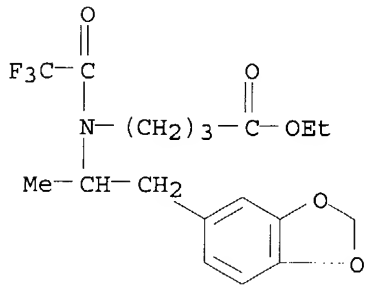
IT **590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

RN 590346-11-5 HCAPLUS

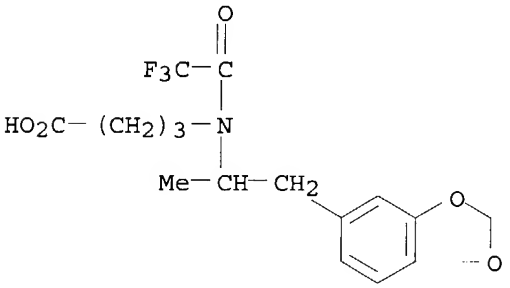
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



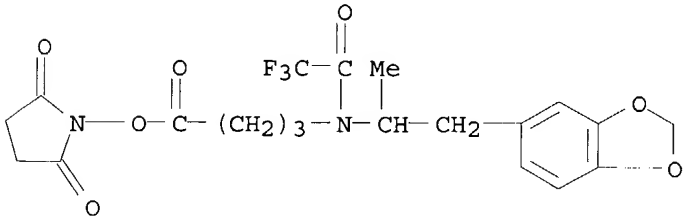
RN 590346-13-7 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 590346-14-8 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl](trifluoroacetyl)amino]- (9CI) (CA INDEX NAME)



RN 590346-15-9 HCAPLUS
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]-2,2,2-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:613001 HCAPLUS
DOCUMENT NUMBER: 139:380044
TITLE: Structures of convulsive substances, brasiliamides, from Penicillium brasilianum JV-379
AUTHOR(S): Fujita, Tomoyuki; Makishima, Daisuke; Akiyama, Kohki; Hayashi, Hideo

CORPORATE SOURCE: Graduate School of Agriculture and Biological Sciences, Osaka Prefecture University, Japan
SOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (2001), 43rd, 317-322
CODEN: TYKYDS
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB In the course of our studies on biol. active fungal metabolites, we obtained an isolate of Penicillium brasilianum Batista JV-379, which showed convulsive activity against silkworm (Bombyx mori), from soil samples collected around Sakai. By using a **bioassay**-guided separation, two active principles (1 and 2) were isolated from okara fermented with the strain. The structure of 1 was elucidated to be N1, N2-diacetyl-N2-(2-oxo-3-phenylpropyl)-3-(5-methoxy-3,4-methylenedioxyphenyl)-1,2-propenediamine by spectroscopic methods, and named brasiliamide A. In 1H and 13C NMR spectra of 2, signals were complicated with almost of all signals doubled in several deuterated solvents at room temperature As the conformational change of 2 in solns. was revealed on NMR spectra at various temps., a major component of 2 in CA was analyzed by 2D NMR methods. It was further proved that four conformational isomers of 2 existed as rotamers on two amide bonds at -60°. The structure of 2 was presumed to be 1,4-diacetyl-2-benzyl-5-(5-methoxy-3,4-methylenedioxybenzyl)-1,2,3,4-tetrahydropyrazine and was finally determined by x-ray crystallog. on a hydrogenation product of 2. Compds. 1 and 2 showed convulsion against silkworm, and their activity were evaluated as ED50 values 300 and 50 μg/g of diet, resp.

CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 10

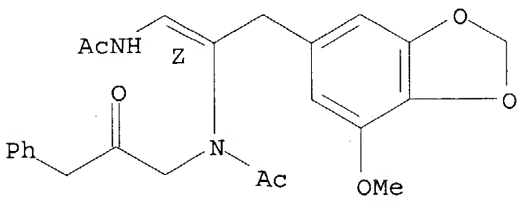
IT **474974-21-5P**, Brasiliamide A 474974-22-6P, Brasiliamide B
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(structures of convulsive substances, brasiliamides, from Penicillium brasilianum JV-379)

IT **474974-21-5P**, Brasiliamide A
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(structures of convulsive substances, brasiliamides, from Penicillium brasilianum JV-379)

RN 474974-21-5 HCAPLUS

CN Acetamide, N-[(1Z)-2-(acetylamino)-1-[(7-methoxy-1,3-benzodioxol-5-yl)methyl]ethenyl]-N-(2-oxo-3-phenylpropyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L8 ANSWER 6 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:488680 HCAPLUS
DOCUMENT NUMBER: 139:48560
TITLE: Method and kit for detecting, or determining,

3,4-methylenedioxymethamphetamine
INVENTOR(S): Mcconnell, Robert Ivan; Benchikh, El Ouard; Fitzgerald, Stephen P.; Lamont, John Victor
PATENT ASSIGNEE(S): Randox Laboratories Ltd., UK
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1321772	A1	20030625	EP 2002-80462	20021217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1429844	A	20030716	CN 2002-139960	20021220
US 2004121400	A1	20040624	US 2002-326742	20021220

PRIORITY APPLN. INFO.: EP 2001-205058 A 20011220
OTHER SOURCE(S): MARPAT 139:48560

AB The present invention describes a **hapten** derivatized with a crosslinker at the N-position of 3,4-methylenedioxymethamphetamine (MDMA). The present invention provides an **immunogen** comprising the aforementioned **hapten**, coupled to an **antigenicity** -conferring carrier material, as well as, conjugates comprising the aforementioned **hapten** covalently bonded to a detectable **labeling** agent. In addition, the present invention concerns **antibodies** raised against the aforementioned **immunogens**. Finally, the present invention relates to methods and kits for detecting or determining MDMA and N-alkylated derivs. of methylenedioxyamphetamine in biol. fluids. The **antibodies** of the present invention do not significantly cross-react with amphetamine and methamphetamine. **Haptens** and **immunogens** and horseradish peroxidase-**labeled hapten** reagents were prepared from (3,4-methylenedioxy)phenylacetic acid for the development of competitive ELISAs for MDMA.

IC ICM G01N033-94
CC 4-1 (Toxicology)
Section cross-reference(s): 15, 28
ST kit detn ecstasy methylenedioxymethamphetamine **hapten** **immunogen**; **antibody immunoassay** kit methylenedioxymethamphetamine detn; ELISA ecstasy body fluid
IT Samples
(anal. of; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT Luminescent substances
Radioactive substances
(conjugates with methylenedioxymethamphetamine derivs.; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT Proteins
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(conjugates, with methylenedioxymethamphetamine derivs., as **immunogens**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates, with methylenedioxymethamphetamine derivs.;

immunoassay, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **Immunoassay**
(enzyme-linked immunosorbent **assay**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT Animal
Mammalia
Vertebrata
(immunization of, in **antibody** production; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT Body fluid
Immunoassay
Test kits
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT Reagents
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **Antibodies** and **Immunoglobulins**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **Haptens**
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **Antigens**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **Albumins**, biological studies
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(serum, conjugates with **hapten**, as **immunogen**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 51-64-9 537-46-2, (+)-Methamphetamine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**antibodies** not cross-reactive with; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 90-82-4, (+)-Pseudoephedrine 156-34-3 299-42-3, (-)-Ephedrine 321-97-1, (-)-Pseudoephedrine 321-98-2, (+)-Ephedrine 4764-17-4, MDA 82801-81-8, 3,4-Methylenedioxyethylamphetamine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**antibody** cross-reactivity with; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **547713-13-3P 547713-15-5P 547713-16-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(as **hapten**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 4764-17-4D, Methylenedioxyamphetamine, N-alkylated derivs.
RL: ANT (Analyte); ANST (Analytical study)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 42542-10-9P, 3,4-Methylenedioxymethamphetamine
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 9003-99-0DP, Peroxidase, conjugates with **hapten**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

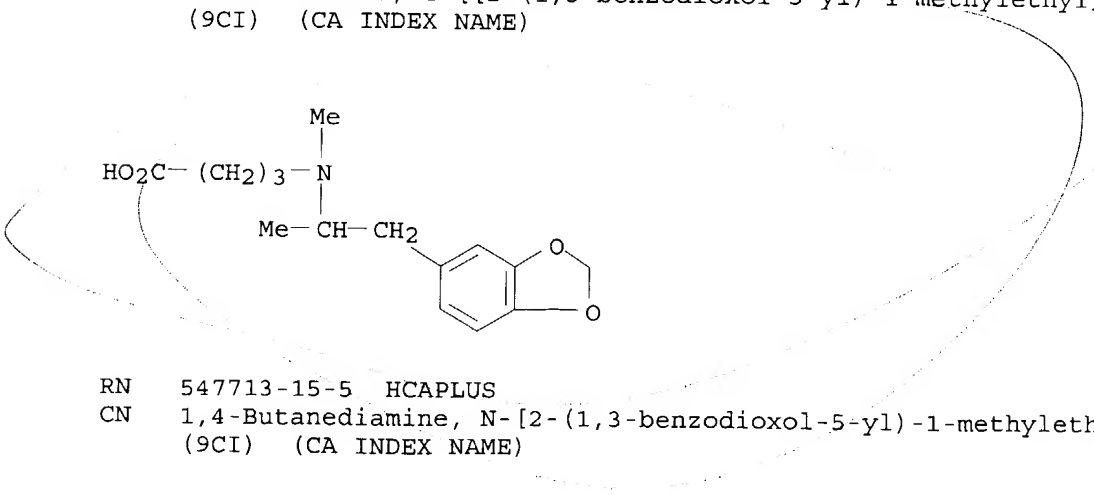
IT 9003-99-0, Peroxidase 93801-73-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(**immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT 593-51-1, Methylamine hydrochloride 2861-28-1, (3,4-Methylenedioxy)phenylacetic acid 2969-81-5, Ethyl 4-bromobutyrate 5394-18-3, N-(4-Bromobutyl)phthalimide 152630-63-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of **hapten**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

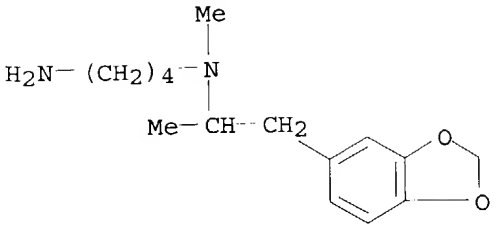
IT 4676-39-5P, (3,4-Methylenedioxy)phenylacetone **547713-12-2P** 547713-14-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of **hapten**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

IT **547713-13-3P 547713-15-5P 547713-16-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(as **hapten**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

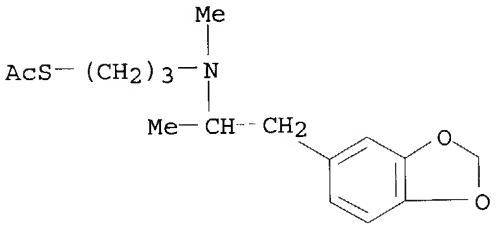
RN 547713-13-3 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]methylamino]- (9CI) (CA INDEX NAME)



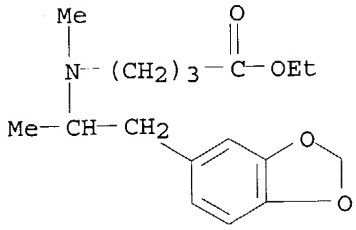
RN 547713-15-5 HCAPLUS
CN 1,4-Butanediamine, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 547713-16-6 HCAPLUS
CN Ethanethioic acid, S-[3-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]methylamino]propyl] ester (9CI) (CA INDEX NAME)



IT **547713-12-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of **hapten**; **immunoassay**, **haptens**, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)
RN 547713-12-2 HCAPLUS
CN Butanoic acid, 4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]methylamino]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:376819 HCAPLUS
DOCUMENT NUMBER: 138:385173
TITLE: Preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease
INVENTOR(S): Varghese, John; Maillard, Michel; Jagodzinska, Barbara; Beck, James P.; Gailunas, Andrea; Fang, Larry; Sealy, Jennifer; Tenbrink, Ruth; Freskos, John;

PATENT ASSIGNEE(S): Mickelson, John; Samala, Lakshman; Hom, Roy
Elan Pharmaceuticals, Inc., USA; Pharmacia & Upjohn Company
SOURCE: PCT Int. Appl., 1243 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003040096	A2	20030515	WO 2002-US36072	20021108
WO 2003040096	A3	20040506		

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WO 2003040096	A2	20030515	WO 2002-XA36072	20021108

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PRIORITY APPLN. INFO.:
US 2001-337122P P 20011108
US 2001-344086P P 20011228
US 2002-345635P P 20020103
WO 2002-US36072 A 20021108

OTHER SOURCE(S): MARPAT 138:385173

AB The title compds. [I; R1 = (un)substituted alkyl, alkenyl, alkynyl, etc.; R2 = H, alkyl, haloalkyl, alkenyl, etc.; R3 = H, alkyl, haloalkyl, alkenyl, etc.; or R2 and R3 are taken together with the carbon to which they are attached to form a carbocycle of 3-7 carbon atoms, optionally where one carbon atom is replaced by a heteroatom selected from the group consisting of O, S, SO2, (un)substituted NH; R4 = alkyl, haloalkyl, hydroxyalkyl, etc.; R5 = R6X (wherein X = CO, SO2, (un)substituted CH2; R6 = (un)substituted Ph, naphthyl, indanyl, etc.); R25 = H, alkyl, alkoxy, etc.] which have activity as inhibitors of β-secretase and are therefore useful in treating a variety of disorders such as Alzheimer's disease, were prepared E.g., a multi-step synthesis of (1S,2R)-II, starting from (2S)-2-[(tert-butoxycarbonyl)amino]-3-(3,5-difluorophenyl)propanoic acid, was given. The compds. I showed IC50 of < 20 μM in cell free inhibition **assay** utilizing a synthetic APP substrate. This is a Part 1 of 1-2 series.

IC ICM C07D
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 28

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527718-71-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease)

IT 527723-65-5P 527723-66-6P 527723-67-7P 527723-68-8P 527723-69-9P
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527726-02-9P 527726-03-0P 527726-04-1P 527726-05-2P 527726-06-3P
527726-07-4P 527726-08-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease)

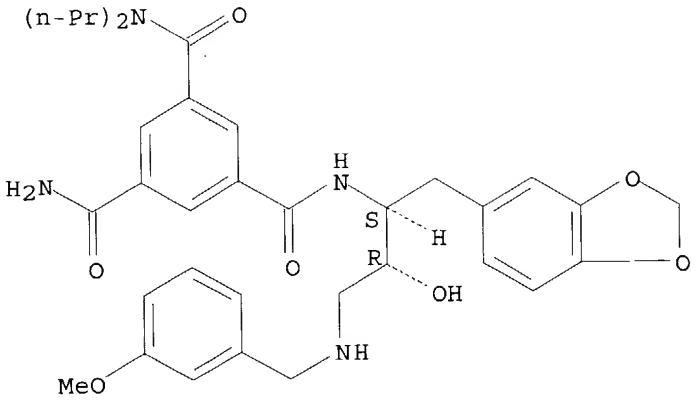
IT **527718-44-1P 527719-32-0P 527719-62-6P**
527719-75-1P 527720-24-7P 527720-70-3P
527720-74-7P 527723-59-7P 527723-62-2P
527723-97-3P 527723-98-4P 527724-00-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N,N'-substituted-1,3-diamino-2-hydroxypropanes for treating Alzheimer's disease)

RN 527718-44-1 HCAPLUS

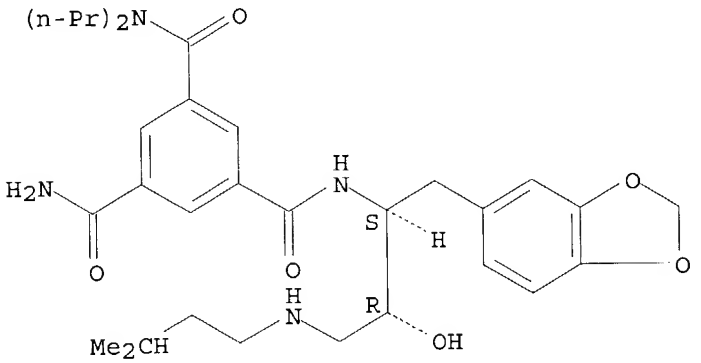
CN 1,3,5-Benzenetricarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



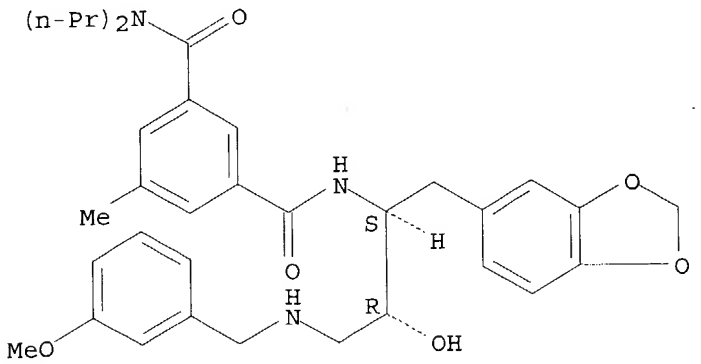
RN 527719-32-0 HCAPLUS
CN 1,3,5-Benzenetricarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(3-methylbutyl)amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



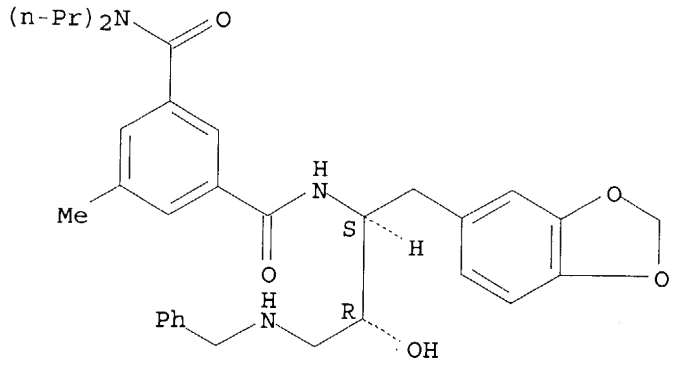
RN 527719-62-6 HCAPLUS
CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



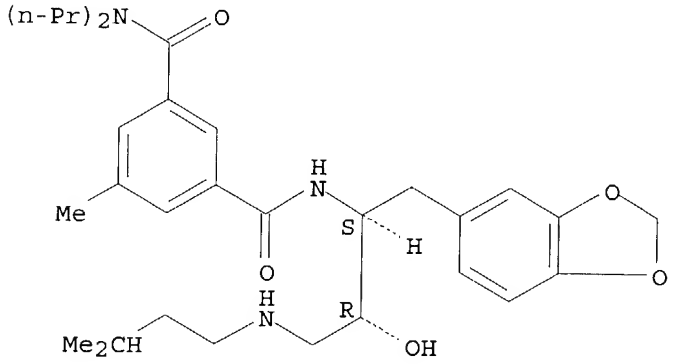
RN 527719-75-1 HCAPLUS
CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(phenylmethyl)amino]propyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



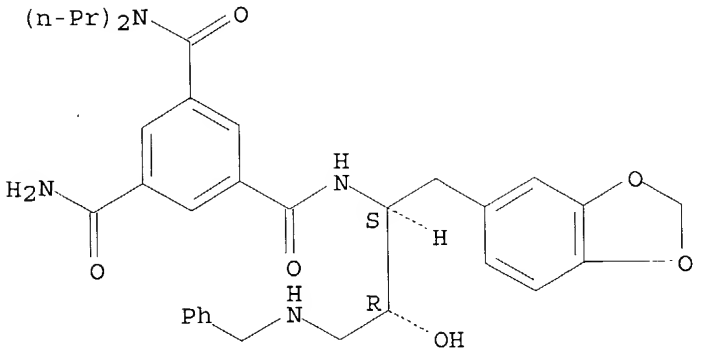
RN 527720-24-7 HCAPLUS
CN 1,3-Benzenedicarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(3-methylbutyl)amino]propyl]-5-methyl-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



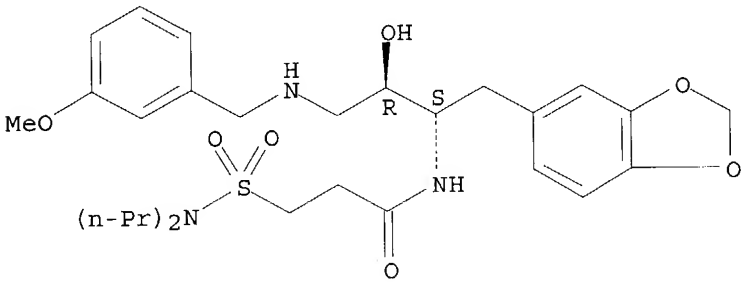
RN 527720-70-3 HCAPLUS
CN 1,3,5-Benzenetricarboxamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(phenylmethyl)amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



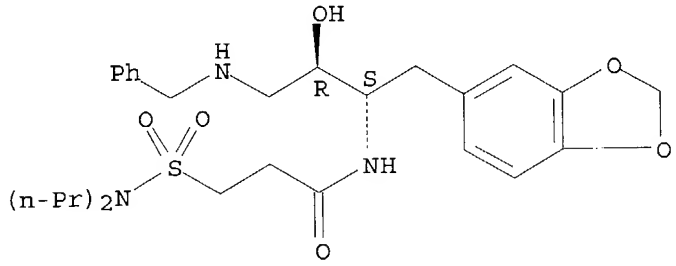
RN 527720-74-7 HCAPLUS
CN Propanamide, N-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-3-[(dipropylamino)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



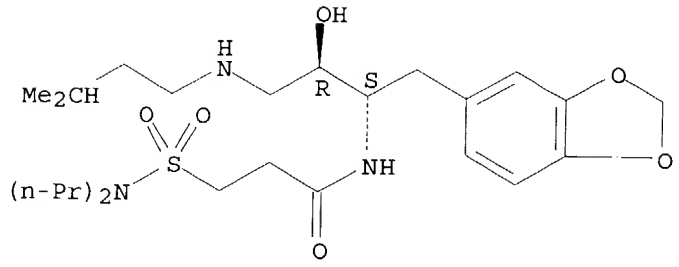
RN 527723-59-7 HCAPLUS
CN Propanamide, N-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(phenylmethyl)amino]propyl]-3-[(dipropylamino)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



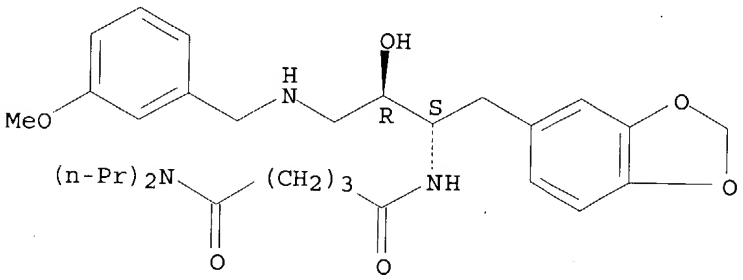
RN 527723-62-2 HCAPLUS
CN Propanamide, N-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(3-methylbutyl)amino]propyl]-3-[(dipropylamino)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



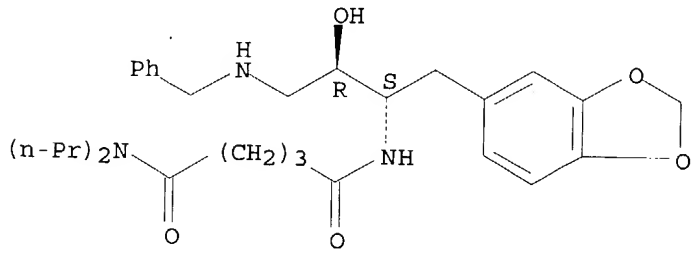
RN 527723-97-3 HCAPLUS
CN Pentanediamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[[(3-methoxyphenyl)methyl]amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



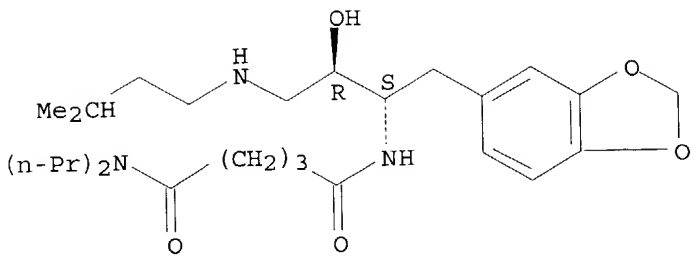
RN 527723-98-4 HCAPLUS
CN Pentanediamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(phenylmethyl)amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 527724-00-1 HCAPLUS
CN Pentanediamide, N'-[(1S,2R)-1-(1,3-benzodioxol-5-ylmethyl)-2-hydroxy-3-[(3-methylbutyl)amino]propyl]-N,N-dipropyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:243303 HCAPLUS
DOCUMENT NUMBER: 139:31207
TITLE: Differential mechanisms and development of leptin resistance in A/J versus C57BL/6J mice during diet-induced obesity
AUTHOR(S): Prpic, Veronica; Watson, Patricia M.; Frampton, Isabell C.; Sabol, Mark A.; Jezek, G. Eric; Gettys, Thomas W.
CORPORATE SOURCE: Pennington Biomedical Research Center, Baton Rouge, LA, 70808, USA
SOURCE: Endocrinology (2003), 144(4), 1155-1163
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Changes in the biol. efficacy of leptin were evaluated in obesity-resistant (A/J) and obesity-prone (C57BL/6J) mice at weaning and after consuming a high-fat (HF) diet for 4 and 8 wk. There was no evidence of leptin resistance in either strain at the start of the study, but after 4 and 8 wk on the HF diet, C57BL/6J mice became unresponsive to i.p. leptin. C57BL/6J mice responded to **intracerebroventricular** leptin at these time points but developed peripheral resistance to sympathetic stimulation of retroperitoneal white adipose tissue. In contrast, **intracerebroventricular** leptin was fully effective in A/J mice, reproducing the complete profile of responses observed in weanling mice. A/J mice were also partially responsive to i.p. leptin at both time points, increasing uncoupling protein 1 mRNA expression in brown adipose tissue and decreasing leptin mRNA in white adipose tissue. The findings indicate that retention of leptin responsiveness is an important component of the ability of A/J mice to mount a robust adaptive thermogenic response and resist diet-induced obesity.

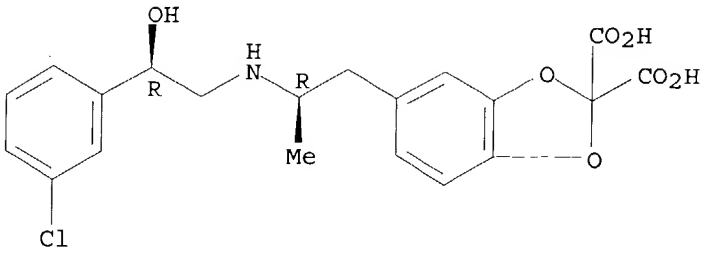
CC 2-10 (Mammalian Hormones)
Section cross-reference(s): 18

IT **138908-40-4**, CL316243 169494-85-3, Leptin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(differential mechanisms and development of leptin resistance in A/J vs. C57BL/6J mice during diet-induced obesity)

IT **138908-40-4**, CL316243
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(differential mechanisms and development of leptin resistance in A/J vs. C57BL/6J mice during diet-induced obesity)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

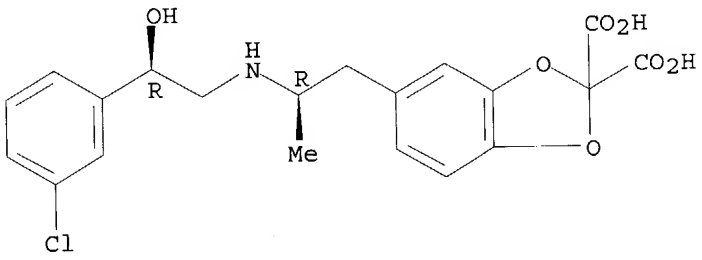
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:674640 HCAPLUS
DOCUMENT NUMBER: 137:380313
TITLE: Characterization of the β-adrenoceptor subtype involved in mediation of glucose transport in L6 cells
AUTHOR(S): Nevzorova, Julia; Bengtsson, Tore; Evans, Bronwyn A.; Summers, Roger J.
CORPORATE SOURCE: Department of Pharmacology, Monash University, Victoria, 3800, Australia
SOURCE: British Journal of Pharmacology (2002), 137(1), 9-18
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The receptor that mediates the increase in glucose transport (GT) in response to β-adrenoceptor (β-AR) agonists was characterized in the rat skeletal muscle cell line L6, using the 2-deoxy-[3H]-D-glucose **assay**. The β3-AR agonist BRL37344 (pEC50=6.89±0.21), the β-AR agonist isoprenaline (pEC50=8.99±0.24) and the β2-AR agonist zinterol (pEC50=9.74±0.15) increased GT as did insulin (pEC50=6.93±0.15). The highly selective β3-AR agonist CL316243 only weakly stimulated GT. The pKB values calculated from the shift of the pEC50 values of the agonists in the presence of the β1-AR selective antagonist CGP 20712A or the β3-AR selective antagonist SR 59230A were not indicative of activation of β1- or β3-ARs. Only (-)-propranolol and the β2-AR selective antagonist ICI 118551 caused marked rightward shifts of CR curves to isoprenaline (pKB=10.2±0.2 and 9.6±0.3), zinterol (pKB=9.0±0.1 and 9.4±0.3) and BRL 37344 (pKB=9.4±0.3 and 8.4±.2), indicating participation of β2-ARs. The pharmacol. anal. was supported by reverse transcription and polymerase chain reaction anal. of L6 mRNA, which showed high levels of expression of β2-AR but not β1- or β3-AR in these cells. Forskolin and dibutyryl cAMP produced negligible increases in GT while the phosphatidylinositol-3 kinase inhibitor, wortmannin, significantly decreased both insulin- and zinterol-stimulated GT, suggesting a possible interaction between the insulin and β2-AR pathways. This study demonstrates that β2-ARs mediate the increase in GT in L6 cells to β-AR agonists, including the β3-AR selective agonist BRL 37344. This effect does not appear to be directly related to increases in cAMP

but requires P13K.
CC 2-8 (Mammalian Hormones)
IT **138908-40-4**, CL316243
RL: PAC (Pharmacological activity); BIOL (Biological study)
(β3-AR highly selective agonist; characterization of β-adrenoceptor subtype involved in mediation of glucose transport in L6 cells)
IT **138908-40-4**, CL316243
RL: PAC (Pharmacological activity); BIOL (Biological study)
(β3-AR highly selective agonist; characterization of β-adrenoceptor subtype involved in mediation of glucose transport in L6 cells)
RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:155666 HCAPLUS
DOCUMENT NUMBER: 136:162629
TITLE: Ecstasy-class analogs and use of same in detection of ecstasy-class compounds
INVENTOR(S): Rouhani, Riaz; Sanchez, Anthony De Jesus; Davoudzadeh, David; Coty, William A.; Vistica, Cynthia A.
PATENT ASSIGNEE(S): Microgenics Corporation, USA
SOURCE: Brit. UK Pat. Appl., 89 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2361473	A1	20011024	GB 2001-5517	20010306
DE 10111224	A1	20020221	DE 2001-10111224	20010308
US 2003207469	A1	20031106	US 2003-457314	20030609

PRIORITY APPLN. INFO.: US 2000-521070 A 20000308
OTHER SOURCE(S): MARPAT 136:162629

AB The present invention provides a system for the improved detection of ecstasy-class compds. in biol. samples. New ecstasy-class analogs are provided for detection of such ecstasy-class drugs. These analogs are compds. or salts thereof, of a 2-amino-methylenedioxyphenyl derivative attached to Z, where Z is a moiety capable of bonding, either directly or indirectly, with an **immunogenic** carrier, a detectable **label**, or a solid capture vehicle. Such analogs may be used to construct **immunogens**, enzyme or enzyme-donor conjugates, and other conjugates. The **immunogens** reproducible generate **antibodies** with an exquisite ability to distinguish various ecstasy-class drugs in biol. samples from potentially interfering substances. The specific **antibodies** and conjugates may be used to distinguish and measure various ecstasy-class compds. in biol. samples, such as those obtained from an individual suspected of substance abuse. In another aspect, the invention includes certain reagents, reagent combinations, and kits for performing **assay** methods for ecstasy-class compds. in a biol. sample.

IC ICM C07D317-58
ICS A61K049-16; C07K016-44

CC 4-2 (Toxicology)

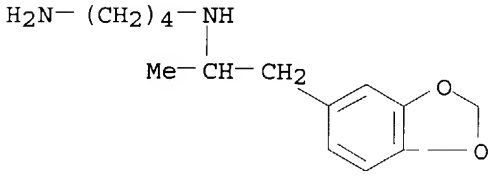
IT 68076-36-8P **397334-20-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ecstasy-class analogs and use of same in detection of ecstasy-class compds.)

IT **397334-19-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(ecstasy-class analogs and use of same in detection of ecstasy-class compds.)

IT **397334-20-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ecstasy-class analogs and use of same in detection of ecstasy-class compds.)

RN 397334-20-2 HCAPLUS

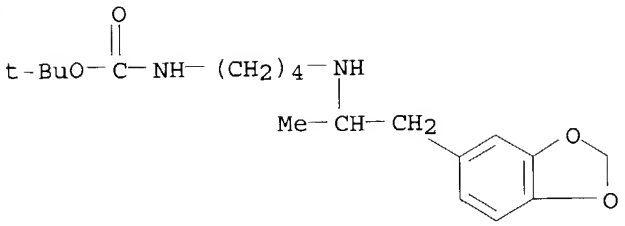
CN 1,4-Butanediamine, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)



IT **397334-19-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(ecstasy-class analogs and use of same in detection of ecstasy-class compds.)

RN 397334-19-9 HCAPLUS

CN Carbamic acid, [4-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]butyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 11 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:935594 HCAPLUS
DOCUMENT NUMBER: 136:69730
TITLE: Preparation of 1,3-bis-(substituted-phenyl)-2-propen-1-ones as VCAM-1 inhibitors for treatment of inflammatory disorders
INVENTOR(S): Meng, Charles Q.; Ni, Liming; Sikorski, James A.; Hoong, Lee K.
PATENT ASSIGNEE(S): Atherogenics, Inc., USA
SOURCE: PCT Int. Appl., 220 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001098291	A2	20011227	WO 2001-US19720	20010620
WO 2001098291	A3	20020516		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2001011889	A	20030624	BR 2001-11889	20010620
EP 1330448	A2	20030730	EP 2001-946583	20010620
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 6608101	B1	20030819	US 2001-886348	20010620
JP 2004501147	T2	20040115	JP 2002-504247	20010620

PRIORITY APPLN. INFO.:
US 2000-212769P P 20000620
US 2000-255934P P 20001215
WO 2001-US19720 W 20010620

OTHER SOURCE(S): MARPAT 136:69730

AB Title compds. I [wherein R2a, R3a, R4a, R5a, R6a, R2b, R3b, R4b, R5b, and R6b = independently H, (cyclo)alkyl, (hetero)aryl, carbocyclyl, (halo)alkylthio, (un)substituted alkoxy or amino, (halo)acyl, amido, (halo)alkylsulfonyl, aminocarbonyl, alkenyl, alkynyl, halo, OH, SH, CN, NO2, SO3H, sulf(on)amido, PO3H2, alditol, carbohydrate, amino acid, etc.; R22 and R23 = independently H or alkyl; or R22 and R6a or R23 and R6a can join together to form a bridged carbocycle, (hetero)aryl, or heterocycle; R2a and R3a, R3a and R4a, R4a and R5a, R5a and R6a, R2b and R3b, R3b and R4b, R4b and R5b, or R5b and R6b and independently join to form a bridged

(un)substituted carbocycle, cycloalkenyl, cycloalk(en)ylcarbonyl, (hetero)aryl, heterocycle, or alkylenedioxy; and the E or Z isomers thereof] were prepared to inhibit the expression of VCAM-1. For example, 3',5'-dimethoxy-4'-hydroxyacetophenone was treated with Et glycolate, PPh3, and di-Et azodicarboxylate in THF to give 4'-ethoxycarbonylmethoxy-3',5'-dimethoxyacetophenone (90%). Coupling the acetophenone and 5-(benzo[b]thien-2-yl)-2,4-dimethoxybenzaldehyde (preparation given) in the presence of NaOH in absolute EtOH afforded the 1,3-diphenyl-2-propen-1-one II (39%), which stimulated cultured human aortic smooth muscle cell activity with IC50 of 0.45 μM. I are useful for the treatment of inflammatory disorders that are mediated by VCAM-1, including arthritis, asthma, dermatitis, cystic fibrosis, post transplantation late and chronic solid organ rejection, multiple sclerosis, systemic lupus erythematosis, inflammatory bowel diseases, autoimmune diabetes, diabetic retinopathy, rhinitis, ischemia-reperfusion injury, post-angioplasty restenosis, chronic obstructive pulmonary disease (COPD), glomerulonephritis, Graves disease, gastrointestinal allergies, conjunctivitis, atherosclerosis, coronary artery disease, angina and small artery disease.

IC ICM C07D333-00

CC 27-8 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1

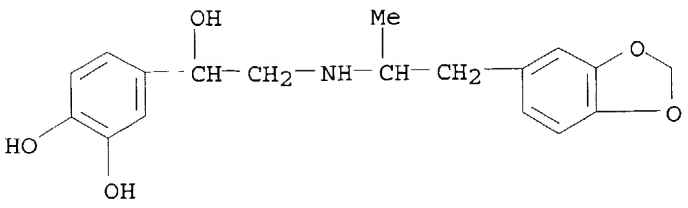
IT **Globulins**, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(γ-, IV; co-administration of bis(substituted phenyl)propenone VCAM-1 inhibitors with other biol. agents)

IT 50-96-4, Isoetharine hydrochloride 50-98-6, Ephedrine hydrochloride 51-43-4, Epinephrine 90-82-4, Pseudoephedrine 134-72-5, Ephedrine sulfate **136-69-6**, Protokylol hydrochloride 299-42-3, Ephedrine 345-78-8, Pseudoephedrine hydrochloride 586-06-1, Metaproterenol 1130-06-9 1944-10-1 3594-85-2 4323-43-7 5588-10-3, Methoxyphenamine hydrochloride 5591-29-7, Etafedrine hydrochloride 5874-97-5, Orciprenaline sulfate 6933-90-0, Clorprenaline hydrochloride 7683-59-2, Isoprenaline 14838-15-4, Phenylpropanolamine 17162-39-9 18559-94-9, Albuterol 21898-19-1, Clenbuterol hydrochloride 23031-25-6, Terbutaline 23031-32-5, Brethine 23239-51-2, Ritodrine hydrochloride 30392-41-7, Bitolterol mesylate 30418-38-3, Tretoquinol 34866-46-1, Carbuterol hydrochloride 38455-90-2 43229-80-7, Eformoterol fumarate 56341-08-3, Mabuterol 56776-01-3, Tulobuterol hydrochloride 62929-91-3, Procaterol hydrochloride 65652-44-0, Maxair 76596-57-1, Broxaterol 81732-46-9, Bambuterol hydrochloride 94749-08-3, Serevent
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-administration of bis(substituted phenyl)propenone VCAM-1 inhibitors with β2-adrenergic agonists)

IT **136-69-6**, Protokylol hydrochloride
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-administration of bis(substituted phenyl)propenone VCAM-1 inhibitors with β2-adrenergic agonists)

RN 136-69-6 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L8 ANSWER 12 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:908703 HCAPLUS
DOCUMENT NUMBER: 136:129359
TITLE: β-Adrenergic regulation of IL-6 release from adipose tissue: In vivo and in vitro studies
AUTHOR(S): Mohamed-Ali, Vidya; Flower, Louise; Sethi, Jaswinder; Hotamisligil, Gokhan; Gray, Rosaire; Humphries, Stephen E.; York, David A.; Pinkney, Jonathan
CORPORATE SOURCE: Department of Medicine, University College London Medical School, Whittington Hospital, London, N19 3UA, UK
SOURCE: Journal of Clinical Endocrinology and Metabolism (2001), 86(12), 5864-5869
CODEN: JCEMAZ; ISSN: 0021-972X
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Circulating IL-6 levels are elevated in obesity. Although IL-6 is expressed in adipose tissue, neither its regulation nor cell of origin is well characterized. Here the authors investigated the β-adrenergic regulation of IL-6 release in a combination of studies on humans and animals in vivo and cultured adipocytes in vitro. Human in vivo study: Human volunteers were infused with isoproterenol, norepinephrine, or saline {4 M:4F; mean (SD) age 35.5 (5.8) yr; body mass index 24.6 (4.2) kg/m-2}. Plasma IL-6 levels increased during a 3-h infusion of isoproterenol and fell 2 h post infusion. IL-6 levels did not change significantly with either norepinephrine or saline. Murine in vivo study: C57BL6/J male mice were injected i.p. with dobutamine (β1 agonist), clenbuterol (β2)1 CL316243 (β3), or saline placebo. Plasma IL-6 levels at 3 h were increased by clenbuterol and CL316243 but not dobutamine, compared with placebo. In vitro studies: In human peripheral blood cells, **lipopolysaccharide** treatment enhanced secretion of IL-6 (vs. controls), whereas isoproterenol inhibited IL-6 secretion and norepinephrine had no significant effect. In contrast, isolated human adipocytes and differentiated 3T3F442A adipocytes all rapidly secreted IL-6 in response to adrenergic agonists (compared with untreated cells). The authors conclude that β2/β3 adrenoceptor stimulation on adipocytes, rather than macrophages, may be responsible for the increases in plasma IL-6 concns. observed during sympathetic activation and in obesity.

CC 2-8 (Mammalian Hormones)
Section cross-reference(s): 15

IT 51-41-2, Norepinephrine 7683-59-2, Isoproterenol 18559-94-9, Salbutamol 34368-04-2, Dobutamine 37148-27-9, Clenbuterol **138908-40-4**, CL316243
RL: BSU (Biological study, unclassified); BUU (Biological use,

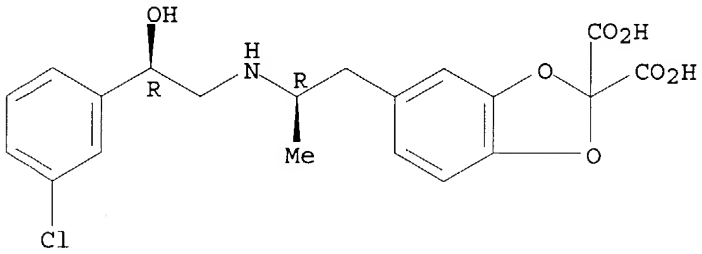
unclassified); BIOL (Biological study); USES (Uses)
(β-agonist; β-adrenergic regulation of IL-6 release from adipose tissue)

IT **138908-40-4**, CL316243
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(β-agonist; β-adrenergic regulation of IL-6 release from adipose tissue)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 13 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:234526 HCAPLUS
DOCUMENT NUMBER: 135:28654
TITLE: Discovery of novel N-phenylglycine derivatives as potent and selective β3-adrenoceptor agonists for the treatment of frequent urination and urinary incontinence
AUTHOR(S): Tanaka, Nobuyuki; Tamai, Tetsuro; Mukaiyama, Harunobu; Hirabayashi, Akihito; Muranaka, Hideyuki; Akahane, Satoshi; Miyata, Hiroshi; Akahane, Masuo
CORPORATE SOURCE: Central Research Laboratory, Kissei Pharmaceutical Company Ltd., Nagano, 399-8304, Japan
SOURCE: Journal of Medicinal Chemistry (2001), 44(9), 1436-1445
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB With a novel **assay** using isolated ferret detrusor to estimate β3-adrenoceptor agonistic activity, we found that a series of glycine derivs. of ritodrine, a β2-adrenoceptor agonist, are potent β3-adrenoceptor agonists, with excellent selectivity vs. β1 and β2 subtypes. Substitution of halogens in the Ph ring increased potency and selectivity for the β3-adrenoceptor, and this was dependent upon the position of the halogens. The chlorine-substituted derivs. 3f-i exhibited potent β3-adrenoceptor-mediated relaxation of

ferret detrusor (EC50 = 0.93, 11, 14, and 160 nM) and higher potency at β3-adrenoceptors than at β1 or β2. The i.v. administration of 3h significantly reduced the urinary bladder pressure in anesthetized male rats (ED50 = 48 μg/kg) without cardiovascular side effects. This article is the first report of structure-activity relationships (SAR) concerning β3-adrenoceptor agonists as agents for the treatment of urinary frequency and incontinence.

CC 1-3 (Pharmacology)
Section cross-reference(s): 25

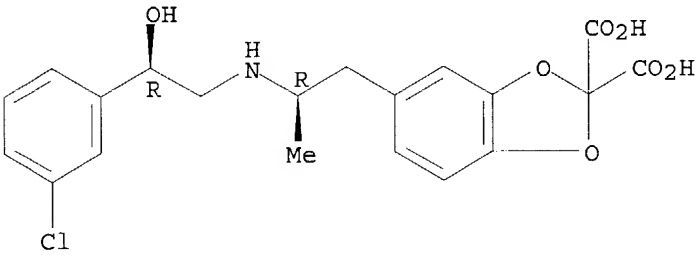
IT 90730-96-4, BRL37344 **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(N-phenylglycine derivs. as potent and selective β3-adrenoceptor agonists for therapy of frequent urination and urinary incontinence)

IT **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(N-phenylglycine derivs. as potent and selective β3-adrenoceptor agonists for therapy of frequent urination and urinary incontinence)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:152168 HCAPLUS
DOCUMENT NUMBER: 134:261454
TITLE: Selectivity and potency of agonists for the three subtypes of cloned human β-adrenoceptors expressed in Chinese hamster ovary cells
AUTHOR(S): Yanagisawa, Teruyuki; Sato, Takeya; Yamada, Hiroaki; Sukegawa, Jun; Nunoki, Kazuo
CORPORATE SOURCE: Laboratory of Molecular Pharmacology, Tohoku University School of Medicine, Sendai, 980-8575, Japan
SOURCE: Tohoku Journal of Experimental Medicine (2000), 192(3), 181-193
CODEN: TJEMAO; ISSN: 0040-8727
PUBLISHER: Tohoku University Medical Press
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The selectivities, potencies and efficacies of β3-adrenoceptor (β3-AR) agonists on human three β-AR subtypes expressed in Chinese hamster ovary (CHO) cells were investigated using radioligand binding **assay** and cAMP accumulation **assay**. The three β-AR subtypes showed the nature of G protein-coupled receptors with the constitutive activity. BRL37344, CL-316,243 and a newly synthesized β3-AR agonist N-5984, 6-[2-(R)-[[2-(R)-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-2, 3-dihydro-1, 4-benzodioxine-2-(R)-carboxylic acid, were compared for the potency and selectivity for the β3-AR. In the radioligand binding **assay**, the affinity of N-5984 for β3-ARs was 14, 70 and 220 times more potent than those of BRL37344, isoproterenol and CL-316,243, resp. N-5984 had higher selectivity than BRL37344 for human β3-ARs compared with either for β1-ARs or β2-ARs. N-5984 showed higher potency and intrinsic activity of cAMP production than BRL37344 in CHO cells expressing the β3-ARs. CL-316,243 had almost no activity of cAMP production in CHO cells expressing any subtype of β-ARs. These results indicate that N-5984 is the most potent and selective agonist for human β3-ARs than any other agonists tested.

CC 2-8 (Mammalian Hormones)

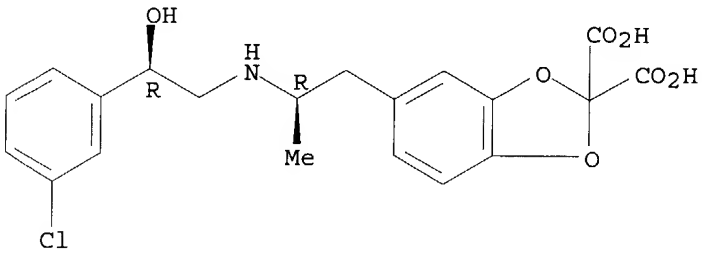
IT 7683-59-2, Isoproterenol 90730-96-4, BRL37344 **138908-40-4**, CL-316243 220475-76-3, N 5984
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(selectivity and potency of agonists for three subtypes of cloned human β-adrenoceptors expressed in Chinese hamster ovary cells)

IT **138908-40-4**, CL-316243
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(selectivity and potency of agonists for three subtypes of cloned human β-adrenoceptors expressed in Chinese hamster ovary cells)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:720700 HCAPLUS
DOCUMENT NUMBER: 134:25113
TITLE: Classification of multidrug-resistance reversal agents using structure-based descriptors and linear discriminant analysis
AUTHOR(S): Bakken, Gregory A.; Jurs, Peter C.
CORPORATE SOURCE: Department of Chemistry, The Pennsylvania State University, University Park, PA, 16802, USA
SOURCE: Journal of Medicinal Chemistry (2000), 43(23), 4534-4541
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Linear discriminant anal. is used to generate models to classify multidrug-resistance reversal agents based on activity. Models are generated and evaluated using multidrug-resistance reversal activity values for 609 compds. measured using adriamycin-resistant P388 murine leukemia cells. Structure-based descriptors numerically encode mol. features which are used in model formation. Two types of models are generated: one type to classify compds. as inactive, moderately active, and active (three-class problem) and one type to classify compds. as inactive or active without considering the moderately active class (two-class problem). Two activity distributions are considered, where the separation between inactive and active compds. is different. When the separation between inactive and active classes is small, a model based on nine topol. descriptors is developed that produces a classification rate of 83.1% correct for an external prediction set. Larger separation between active and inactive classes raises the prediction set classification rate to 92.0% correct using a model with six topol. descriptors. Models are further validated through Monte Carlo expts. in which models are generated after class **labels** have been scrambled. The classification rates achieved demonstrate that the models developed could serve as a screening mechanism to identify potentially useful multidrug-resistance reversal (MDRR) agents from large libraries of compds.

CC 1-3 (Pharmacology)

IT 50-47-5, Desipramine 50-48-6, Amitriptyline 50-49-7, Imipramine 50-52-2, Thioridazine 50-53-3, Chlorpromazine, biological studies 52-53-9, Verapamil 52-86-8, Haloperidol 54-03-5, Hexobendine 54-05-7, Chloroquine 57-41-0, Phenytoin 58-00-4, Apomorphine 58-32-2, RA-8 58-38-8, Prochlorperazine 58-39-9, Perfenazine 58-40-2, Promazine 58-46-8, Tetrabenazine 58-73-1, Diphenhydramine 58-74-2, Papaverine 59-32-5, Chloropyramine 59-33-6, Pyrilamine 60-46-8, Aminopentamide 60-87-7, Promethazine 61-00-7, Acepromazine 61-01-8, Methopromazine 63-12-7, Benzquinamide 64-04-0, Phenethylamine 64-95-9, Adiphenine 64-96-0, U11555A 68-88-2, Hydroxyzine 69-23-8, Fluphenazine 74-31-7 77-01-0, Fenpipramide 77-37-2, Procyclidine 77-38-3, Chlorphenoxamine 77-39-4, Cycrimine 78-41-1, Triparanol 82-92-8, Cyclizine 82-93-9 82-95-1, Buclizine 83-98-7, Orphenadrine 84-08-2, Pyrathiazine 84-96-8, Trimeprazine 84-97-9, Perazine 85-10-9 85-79-0, Dibucaine 86-21-5, Pheniramine 86-22-6 86-42-0, Amodiaquin 87-52-5, Gramine 90-30-2 90-34-6, Primaquine 90-54-0, Etafenone 90-69-7, Lobeline 91-65-6 91-66-7, Diethylaniline 91-75-8, Antazoline 91-79-2, Thenyldiamine 91-80-5, Methapyrilene 91-81-6, Tripelennamine 91-85-0, Thonzylamine 92-12-6, Phenyltoloxamine 92-54-6, 1-Phenylpiperazine 92-59-1, Ethylbenzylaniline 101-82-6, 2-Benzylpyridine 103-49-1, Dibenzylamine 103-83-3 113-92-8, Chlorpheniramine 117-89-5 118-08-1, Hydrastine

118-23-0, Ambodryl 120-20-7, Homoveratrylamine 128-62-1, Noscapine
129-03-3, Cyproheptadine 130-95-0, Quinine 132-17-2, Benztropine
135-88-6 **136-70-9**, Protokylol 140-28-3 144-11-6 146-54-3,
Trifluprom azine 147-20-6, Diphenylpyraline 148-07-2, Benzmalecene
150-59-4, Alverine 153-87-7, Oxypertine 298-55-5, Clocinizine
298-57-7, Cinnarizine 299-48-9, Piperamide 302-33-0, Proadifen
302-40-9, Benactyzine 303-69-5, Prothipendyl 314-03-4, Pimethixene
315-72-0, Opipramol 316-81-4, Thioproperazine 318-23-0, Imolamine
341-00-4, Etifelmine 357-66-4, Spirilene 364-62-5, Metoclopramide
366-93-8, AY 9944 388-51-2, Metofenazate 390-64-7, Prenylamine
395-28-8, Isoxsuprine 442-52-4, Clemizole 447-41-6, Nylidrin
467-60-7, Pipradol 469-62-5, Propoxyphene 475-81-0, Glaucine
476-70-0, Boldine 483-18-1, Emetine 485-33-6, Laudanosoline
486-12-4, Triprolidine 486-16-8, Carbinoxamine 486-17-9, Captodiame
493-78-7, Methaphenilene 493-80-1, Histapyrrodine 510-53-2,
Racemethorphan 510-74-7, Spiramide 511-45-5, Pridinol 514-65-8,
Biperiden 522-18-9, Chlorbenzoxamine 524-83-4, Ethylbenztropine
524-99-2, Medrylamine 525-01-9, Linadryl 525-66-6, Propranolol
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569-65-3, Meclizine 620-40-6, Tribenzylamine 635-41-6, Trimetozine
653-03-2, Butaperazine 739-71-9, Trimipramine 741-28-6, MA 1862
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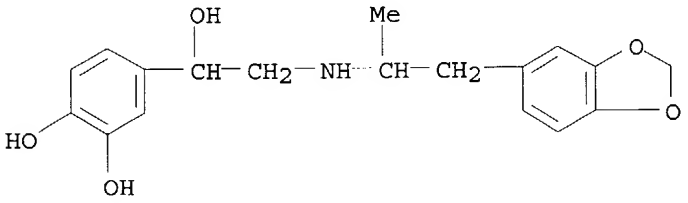
1096-72-6, Hepzidine 1178-99-0, U10520A 1301-42-4, Euprocin
1420-55-9, Thiethylperazine 1480-19-9, Fluanisone 1485-70-7,
N-Benzylbenzamide 1649-18-9, Azaperone 1679-76-1, Drofenine
1841-19-6 1845-11-0, Nafoxidine 1893-33-0, Pipamperone 1951-25-3,
Amiodarone 1977-10-2, Loxapine 1977-11-3, Perlapine 1982-37-2,
Methdilazine 2058-52-8, Clothiapine 2062-78-4, Pimozide 2086-83-1,
Berberine 2179-37-5, Bencyclane 2470-73-7, Dixyrazine 2545-39-3,
Clamoxyquin 2622-26-6, Propericiazine 2622-30-2, Carphenazine
2688-77-9, Laudanosine 2751-68-0, Acetophenazine 2759-28-6,
1-Benzylpiperazine 2949-95-3, Tixadil 3039-71-2, U18666A 3215-70-1,
Hexoprenaline 3313-26-6, cis-Thiothixene 3313-27-7, trans-Thiothixene
3415-54-1, W 2795 3416-26-0, Lidoflazine 3426-08-2, Prozapine
3436-11-1, Delfantrine 3572-52-9, Biphenamine 3601-19-2, Ropizine
3625-06-7, Mebeverine 3626-67-3, Hexadiline 3647-71-0 3678-70-4
3692-16-8, Rythmol 3703-76-2, Cloperastine 3735-45-3, Vetrabutine
3737-09-5, Disopyramide 3819-00-9, Piperacetazine 3833-99-6,
Homofenazine 3963-62-0 3964-81-6, Azatadine 4004-94-8, Zolertine
4024-34-4, Neobenodine 4096-20-2, 1-Phenylpiperidine 4177-58-6,
Clothixamide 4238-71-5, 1-Benzylimidazole 4298-15-1, Cletoquine
4354-45-4, Propenzolate 4378-36-3, Fenbutrazate 4386-76-9, Troxonium
4448-96-8, Solypertine 4747-99-3 4774-24-7, Quipazine 4914-30-1,
Dehydroemetine 4945-47-5, Bamipine 4969-02-2, Methixene 5061-22-3,
Nafiverine 5169-78-8, Tipepidine 5322-53-2, Oxiperomide 5522-39-4,
Difluanine 5560-77-0 5585-64-8 5585-93-3, Oxypendyl 5588-21-6,
Cintriamide 5588-33-0, Mesoridazine 5632-44-0, Tolpropamine
5633-20-5, Oxybutynin 5636-83-9, Dimethindene 5668-06-4, Mecloxamine
5696-09-3, Proxazole 5786-21-0, Clozapine 5800-19-1, Metiapine
5957-22-2 5966-41-6, Diisopromine 6376-26-7, Salverine 6621-47-2,
Perhexiline 6703-39-5, Diphenazoline 6732-77-0, MER 37 6872-73-7,
Coralyne 6888-11-5, Etanautine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

(classification of multidrug-resistance reversal agents using structure-based descriptors and linear discriminant anal. in relation to drug screening)

IT **136-70-9**, Protokylol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(classification of multidrug-resistance reversal agents using structure-based descriptors and linear discriminant anal. in relation to drug screening)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 16 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:704083 HCAPLUS

DOCUMENT NUMBER: 134:13590

TITLE: Existence of a β3-adrenoceptor and its functional role in the human ureter

AUTHOR(S): Park, Young-Chol; Tomiyama, Yoshitaka; Hayakawa, Kohichi; Akahane, Masuo; Ajisawa, Yukiyoshi; Miyatake, Ryuichiro; Kiwamoto, Hiro; Sugiyama, Takahide; Kurita, Takashi

CORPORATE SOURCE: Department of Urology, Kinki University School of Medicine, Osaka, Japan

SOURCE: Journal of Urology (Baltimore) (2000), 164(4), 1364-1370
CODEN: JOURAA; ISSN: 0022-5347

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors tried to determine the β-adrenoceptor (AR) subtypes distributed in the human ureter and to clarify their functional role in ureteral relaxation. Effects of β-AR agonists on either spontaneous or KCl-induced contractions of the human ureter and the antagonism by β-AR antagonists on isoprenaline (a non-selective β-AR agonist)-induced effects were evaluated in vitro. Displacement by β-AR antagonists of [3H]-dihydroalprenolol binding to a membrane preparation derived from human ureteral smooth muscle was evaluated. A reverse transcription polymerase chain reaction **assay** was performed to determine the expression of the mRNA for β1-, β2- and β3-ARs in human ureteral smooth muscle. Isoprenaline and procaterol (a β2-AR agonist) concentration-dependently suppressed both spontaneous and KCl-induced contractions of the human ureter. The β3-AR agonists, CGP-12177A and CL-316243, also suppressed these ureteral contractions, but dobutamine (a β1-AR agonist) had little relaxing effect. The rank order of

relaxing potency for the catecholamines was isoprenaline > adrenaline > noradrenaline. ICI-118,551 (a β2-AR antagonist) only partially antagonized the isoprenaline-induced relaxation. Propranolol (a non-selective β-AR antagonist) and ICI-118,551 concentration-dependently displaced [3H]-dihydroalprenolol binding to the membrane with Ki values of 1.5 + 10-9 M and 6.3 + 10-9 M, resp., while metoprolol (a β1-AR antagonist) was less effective in this **assay**. β1-, β2- And β3-AR mRNAs were all expressed in human ureteral smooth muscle. The present results provide the first evidence that the β3-AR subtype is distributed in human ureteral smooth muscle and that it, and β2-AR, mediate the ureteral relaxation induced by adrenergic stimulation.

CC 2-8 (Mammalian Hormones)

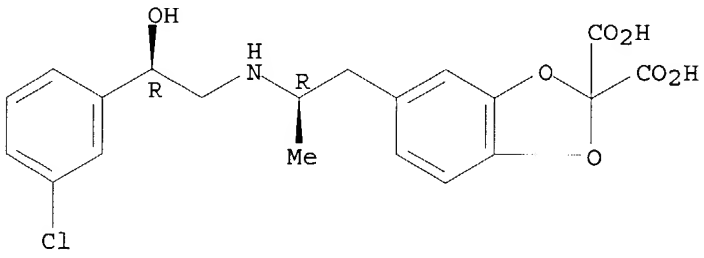
IT 64208-32-8, CGP-12177A **138908-40-4**, CL-316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor agonist; β-adrenoceptor subtype expression and functional role in human ureter relaxation)

IT **138908-40-4**, CL-316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor agonist; β-adrenoceptor subtype expression and functional role in human ureter relaxation)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:589677 HCAPLUS
DOCUMENT NUMBER: 133:305514
TITLE: **Intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus
AUTHOR(S): Castillo-Melendez, M.; McKinley, M. J.; Summers, R. J.
CORPORATE SOURCE: Department of Pharmacology, Monash University, Victoria, 3800, Australia
SOURCE: Neuroscience Letters (2000), 290(3), 161-164

CODEN: NELED5; ISSN: 0304-3940
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Intracerebroventricular** (i.c.v.) administration of the β3-AR agonist BRL37344 causes dose dependent decreases in food intake in rats suggesting a role for β3-AR in the central control of feeding. We have conducted expts. investigating the effects of i.c.v. administration of the selective β3-AR agonist CL316243 on Fos expression to determine whether β3-AR stimulation affects neurons within specific brain nuclei. Significantly higher nos. of Fos pos. cells were found in the rats treated i.c.v. with CL316243 compared with control rats in the paraventricular hypothalamus, lateral hypothalamic area, ventromedial hypothalamic nucleus and dorsal hypothalamic area. Pre-treatment with the selective β3-AR antagonist SR59230A resulted in a significant decrease in the number of Fos pos. cells in all those areas compared with rats treated with CL316243 alone. These expts. demonstrate that i.c.v. administration of selective β3-AR agonist causes neuronal activation in hypothalamic areas important in the central regulation of appetite via a β3-AR mediated effect.

CC 1-11 (Pharmacology)
Section cross-reference(s): 2, 13

IT Gene, animal
Transcription factors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(c-fos; **intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

IT Brain
(hypothalamus, neuronal activation; **intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

IT Appetite
(**intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

IT Adrenoceptor agonists
(β3-; **intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

IT Adrenoceptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β3; **intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

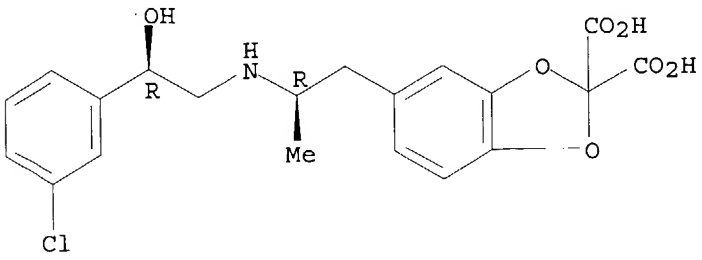
IT 90730-96-4, BRL37344 **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

IT **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**intracerebroventricular** administration of the β3-adrenoceptor agonist CL 316243 causes Fos immunoreactivity in discrete regions of rat hypothalamus)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:309557 HCAPLUS
DOCUMENT NUMBER: 133:114587
TITLE: Peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR Class II MHC molecules. Design, structure-activity relationships, and x-ray crystal structures
AUTHOR(S): Bolin, David R.; Swain, Amy L.; Sarabu, Ramakanth; Berthel, Steven J.; Gillespie, Paul; Huby, Nicholas J. S.; Makofske, Raymond; Orzechowski, Lucja; Perrotta, Agostino; Toth, Katherine; Cooper, Joel P.; Jiang, Nan; Falcioni, Fiorenza; Campbell, Robert; Cox, Donald; Gaizband, Diana; Belunis, Charles J.; Vidovic, Damir; Ito, Kouichi; Crowther, Robert; Kammlott, Ursula; Zhang, Xiaolei; Palermo, Robert; Weber, David; Guenot, Jeanmarie; Nagy, Zoltan; Olson, Gary L.
CORPORATE SOURCE: Roche Research Center, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA
SOURCE: Journal of Medicinal Chemistry (2000), 43(11), 2135-2148
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mol. features of ligand binding to MHC class II HLA-DR mols. have been elucidated through a combination of peptide structure-activity studies and structure-based drug design, resulting in analogs with nanomolar affinity in binding **assays**. Stabilization of lead compds. against cathepsin B cleavage by N-methylation of noncrit. backbone NH groups or by dipeptide mimetic substitutions has generated analogs that compete effectively against protein **antigens** in cellular **assays**, resulting in inhibition of T-cell proliferation. Crystal structures of four ternary complexes of different peptide mimetics with the rheumatoid arthritis-linked MHC DRB1*0401 and the bacterial **superantigen** SEB have been obtained. Peptide-sugar hybrids have also been identified

using a structure-based design approach in which the sugar residue replaces a dipeptide. These studies illustrate the complementary roles played by phage display library methods, peptide analog SAR, peptide mimetics substitutions, and structure-based drug design in the discovery of inhibitors of **antigen** presentation by MHC class II HLA-DR mols.

CC 1-3 (Pharmacology)

IT Histocompatibility **antigens**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(HLA-DR; peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR class II MHC mols. design, structure-activity relationships, and x-ray crystal structures)

IT Drug design
Structure-activity relationship
(peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR class II MHC mols. design, structure-activity relationships, and x-ray crystal structures)

IT 285142-18-9 285142-19-0 285142-20-3 285142-21-4 285142-22-5
285142-23-6 **285142-24-7** 285142-25-8 285142-26-9
285142-27-0 285142-28-1 285142-29-2 285142-30-5 285142-31-6
285142-32-7 285142-33-8 285142-34-9 285142-35-0 285142-36-1
285142-37-2 285142-38-3 285142-39-4 285142-40-7 285142-41-8
285142-42-9 285142-43-0 285142-44-1 285142-45-2 285142-46-3
285142-47-4 285142-48-5 285142-49-6 285142-50-9 285142-51-0
285142-52-1 285142-53-2 285142-54-3 285142-55-4 285142-56-5
285142-57-6 285142-58-7 285142-59-8 285142-60-1 285142-61-2
285142-62-3 285142-63-4 285142-64-5 285142-65-6 285142-66-7
285142-67-8 285142-68-9 285142-69-0 285142-70-3 285142-71-4
285142-72-5 285142-73-6 285142-74-7 285142-75-8 285142-76-9
285142-77-0 285142-78-1 285142-79-2 285142-80-5 285142-81-6
285142-82-7 285142-83-8 285142-84-9 285142-85-0 285142-86-1
285142-87-2 285142-88-3 285142-89-4 285567-68-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR class II MHC mols. design, structure-activity relationships, and x-ray crystal structures)

IT 9047-22-7, Cathepsin B
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR class II MHC mols. design, structure-activity relationships, and x-ray crystal structures)

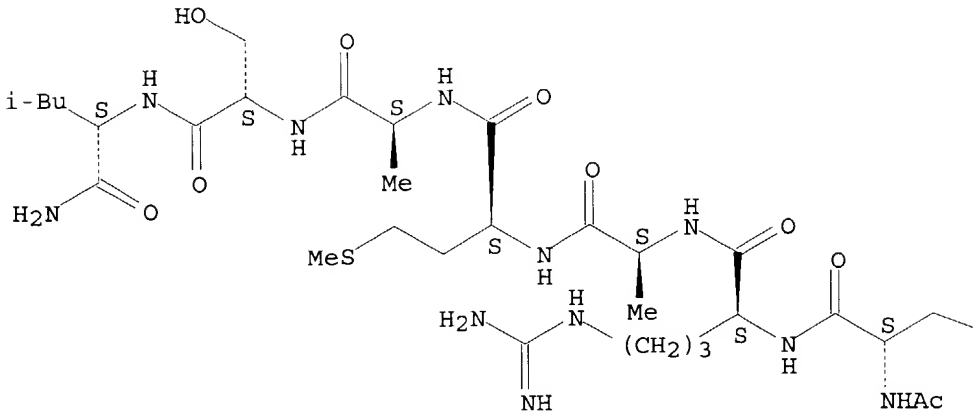
IT **285142-24-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(peptide and peptide mimetic inhibitors of **antigen** presentation by HLA-DR class II MHC mols. design, structure-activity relationships, and x-ray crystal structures)

RN 285142-24-7 HCAPLUS

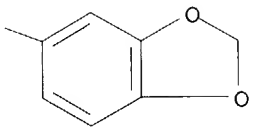
CN L-Leucinamide, N-acetyl-3-(1,3-benzodioxol-5-yl)-L-alanyl-L-arginyl-L-alanyl-L-methionyl-L-alanyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

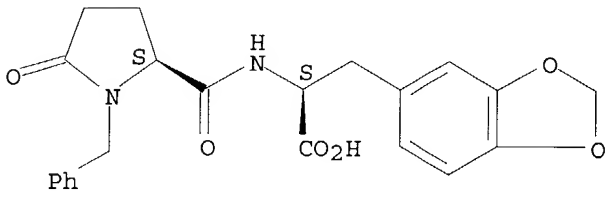


REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:269113 HCAPLUS
DOCUMENT NUMBER: 133:17771
TITLE: N-Benzylpyroglutamyl-L-phenylalanine derivatives as VCAM/VLA-4 antagonists
AUTHOR(S): Chen, Li; Tilley, Jefferson W.; Guthrie, Robert W.; Mennona, Francis; Huang, Tai-Nan; Kaplan, Gerry; Trilles, Richard; Miklowski, Dorota; Huby, Nicolas; Schwinge, Virginia; Wolitzky, Barry; Rowan, Karen
CORPORATE SOURCE: Roche Research Center, Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(8), 729-733
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:17771
AB A series of 4-substituted N-(N-benzylpyroglutamyl)-L-phenylalanine derivs. was prepared as VLA-4/VCAM-1 antagonists. Analogs substituted by electron-deficient benzoylamino groups bearing bulky ortho substituents had low-nM potency in an ELISA **assay** and low-μM activity in a cell based **assay**.
CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 15
IT 272784-31-3P 272784-32-4P 272784-33-5P 272784-34-6P 272784-35-7P
272784-36-8P **272784-37-9P** 272784-38-0P 272784-39-1P
272784-40-4P 272784-42-6P 272784-45-9P 272784-46-0P 272784-47-1P
272784-48-2P 272784-49-3P 272784-50-6P 272784-53-9P 272784-54-0P
272784-55-1P 272784-56-2P 272784-57-3P 272784-58-4P 272790-48-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of (N-benzylpyroglutamyl)phenylalanines as VCAM/VLA-4 antagonists)
IT **272784-37-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of (N-benzylpyroglutamyl)phenylalanines as VCAM/VLA-4 antagonists)
RN 272784-37-9 HCAPLUS
CN L-Alanine, 5-oxo-1-(phenylmethyl)-L-prolyl-3-(1,3-benzodioxol-5-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:255962 HCAPLUS
DOCUMENT NUMBER: 133:38533
TITLE: Effects of octopamine on lipolysis, glucose transport and amine oxidation in mammalian fat cells
AUTHOR(S): Fontana, E.; Morin, N.; Prevot, D.; Carpene, C.
CORPORATE SOURCE: Institut Louis Bugnard Bat L3, Unite 317, Institut National de la Sante et de la Recherche Medicale (INSERM), Toulouse, 31403, Fr.
SOURCE: Comparative Biochemistry and Physiology, Part C: Toxicology & Pharmacology (2000), 125C(1), 33-44
CODEN: CBPPFK
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Octopamine is known to exert adrenergic effects in mammals although

specific octopamine receptors have been cloned only in invertebrates. It has been shown that octopamine can stimulate α2-adrenoceptors (ARs) in Chinese hamster ovary cells transfected with human α2-ARs. More recently, the authors reported that octopamine stimulates lipolysis through β3-rather than β1-or β2-AR activation in white adipocytes from different mammalian species. The present study was thus undertaken to further characterize the adrenergic properties of octopamine. For this purpose, several biol. processes known to be regulated by adrenergic stimulation were studied in response to octopamine, noradrenaline, adrenaline and tyramine in white adipocytes from different mammals. First, octopamine was fully lipolytic in garden dormouse and Siberian hamster while tyramine was ineffective. Although being around one hundred-fold less potent that noradrenaline, octopamine was slightly more potent in these hibernators known for their high sensitivity to β3-AR agonists than in rat and chiefly more active than in human adipocytes known for their limited responses to β3-AR agonists. Second, octopamine reduced insulin-dependent glucose transport in rat fat cells, a response also observed with noradrenaline and selective β3-AR agonists but not with β1-or β2-agonists. Third, human adipocytes, which endogenously express a high level of α2-ARs, exhibited a clear α2-adrenergic antilipolytic response to adrenaline but not to octopamine. Moreover, octopamine exhibited only a very weak affinity for the α2A-ARs **labeled** by [3H]RX 821002 in human adipocyte membranes. In Syrian hamster adipocytes, which also possess α2-ARs, octopamine induced only a weak anti-lipolysis. Finally, octopamine was a substrate of fat cell amine oxidases, with an apparent affinity similar to that of noradrenaline. All these results demonstrate that octopamine, tyramine, noradrenaline and adrenaline can be degraded by adipocyte amine oxidases. However these biogenic amines interact differently with adipocyte adrenoceptors: tyramine is inactive, adrenaline and noradrenaline activate both β- and α2-ARs while octopamine activates only β3-ARs and is devoid of α2-adrenergic agonism. Thus, octopamine could be considered as an endogenous selective β3-AR agonist.

CC 2-8 (Mammalian Hormones)
Section cross-reference(s): 13

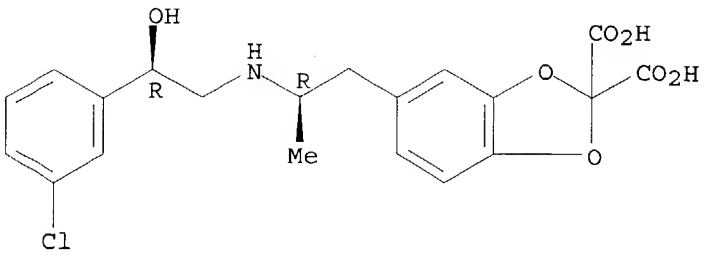
IT 51-41-2, Noradrenaline 51-43-4, Adrenaline 4205-90-7, Clonidine 9001-66-5, Monoamine oxidase 9004-10-8, Insulin, biological studies 129689-30-1, Z D7114 **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(octopamine as β3-adrenoceptor agonist and effects on lipolysis, glucose transport and amine oxidation in different mammalian fat cells)

IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(octopamine as β3-adrenoceptor agonist and effects on lipolysis, glucose transport and amine oxidation in different mammalian fat cells)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:753458 HCAPLUS
DOCUMENT NUMBER: 132:1820
TITLE: Infrared thermography for measuring real-time thermogenesis in organisms and cells
INVENTOR(S): Lenhard, James Martin; Paulik, Mark Andrew
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9960630	A1	19991125	WO 1999-US10579	19990514
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9940774	A1	19991206	AU 1999-40774	19990514
EP 1086494	A1	20010328	EP 1999-924222	19990514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002516398	T2	20020604	JP 2000-550152	19990514
JP 2003247962	A2	20030905	JP 2003-8770	19990514
JP 2003247963	A2	20030905	JP 2003-8771	19990514

PRIORITY APPLN. INFO.: US 1998-85736P P 19980515
JP 2000-550152 A3 19990514
WO 1999-US10579 W 19990514

AB The present invention relates, in general, to thermog. and, in particular, to a method of using IR thermog. to monitor physiol. and mol. events that elicit a thermogenic response in animals (including humans), plants, tissues, cells and cell-free systems. The present method can be used for screening, identifying, and ranking drug candidates for multiple diseases,

disorders and conditions. Three different inbred strains of mice, AKR/J, C57BL/6J, and SWR/J, were maintained on high and low fat diets for 14 wk before treatment with the β3-adrenoceptor agonist, BRL37344. The heat produced in the intrascapular region was measured before and after 60 min treatment using IR thermog. The obesity prone mice, AKR/J, had a greater thermogenic response to BRL37344 when fed the higher fat diet. The obesity resistant mice, SWR/J, had a greater thermogenic response when fed the lower fat diet. There was little difference in the response of C57BL/6J mice on a high or low fat diet.

IC ICM H01L029-04
ICS G01N007-00; G01N025-18; G01N025-08; G01N027-416; G01N001-18; G01N021-62

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1, 13, 17, 73

IT **Antibodies**
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); PROC (Process)
(to synthetic uncoupling protein UCP2 peptide, preparation of; IR thermog. for measuring real-time thermogenesis in organisms and cells)

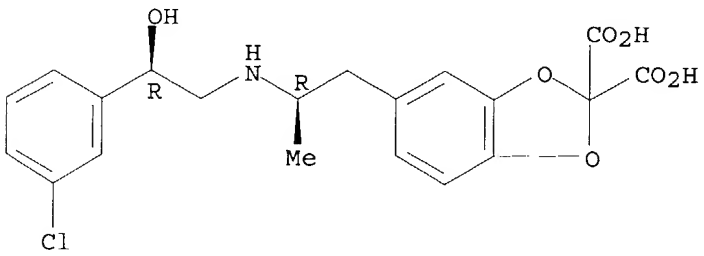
IT 250776-65-9P
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(as synthetic uncoupling protein UCP2 peptide, **antibodies** preparation to; IR thermog. for measuring real-time thermogenesis in organisms and cells)

IT 74513-77-2, RO363 74772-77-3, Ciglitazone 97322-87-7, Troglitazone 109229-58-5, Englitazone 111025-46-8, Pioglitazone 122320-73-4, BRL49653 **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect of, in adipocytes; IR thermog. for measuring real-time thermogenesis in organisms and cells)

IT **138908-40-4**, CL316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effect of, in adipocytes; IR thermog. for measuring real-time thermogenesis in organisms and cells)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:486414 HCAPLUS
DOCUMENT NUMBER: 131:237736
TITLE: Interspecies differences in the cardiac negative inotropic effects of β3-adrenoceptor agonists
AUTHOR(S): Gauthier, Chantal; Tavernier, Genevieve; Trochu, Jean-Noel; Leblais, Veronique; Laurent, Karine; Langin, Dominique; Escande, Denis; Le Marec, Herve
CORPORATE SOURCE: Laboratoire de Physiopathologie et Pharmacologie Cellulaires et Moleculaires, Institut National de la Sante et de la Recherche Medicale, Nantes, Fr.
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1999), 290(2), 687-693
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of the present study was to compare the effects of three preferential (BRL 37344, SR 58611, CL 316 243) and a partial (CGP 12177) β-adrenoceptor (β3-AR) agonists on the contractility of ventricular strips sampled from various mammalian species including humans. In the human heart, all β3-AR agonists tested decreased contractility by 40 to 60% below control with an order of potency: BRL 37344 > CL 316 243 = SR 58611 >> CGP 12177. In the dog, the neg. inotropic effects produced by β3-AR stimulation were less pronounced than in humans, ≈30% below control. The order of potency of β3-AR agonists was CGP 12177 > BRL 37344 = SR 58611 >> CL 316 243; i.e., very different from that observed in humans. In rat, only BRL 37344 was efficient to decrease contractility. In guinea pig, only CL 316 243 significantly reduced peak tension. In both species, the reduction in peak tension did not exceed 20 to 30%. Finally, in the ferret, none of the agonists tested induced a neg. inotropic effect. In dog, the neg. inotropic effects of CGP 12177 were not modified by nadolol, but were abolished by bupranolol, a β1-3-AR antagonist. β3-AR transcripts were detected in the dog but not in the rat ventricle by using a reverse transcription-polymerase chain reaction **assay**. The authors conclude that cardiac neg. inotropic effects related to β3-AR agonist stimulation vary markedly depending on the species. A comparable interspecies variation previously has been reported concerning the lipolytic effects of β3-AR agonist stimulation. The authors' study demonstrates that the pharmacol. profile of a β3-AR agonist on the human myocardium cannot be extrapolated from usual animal models.

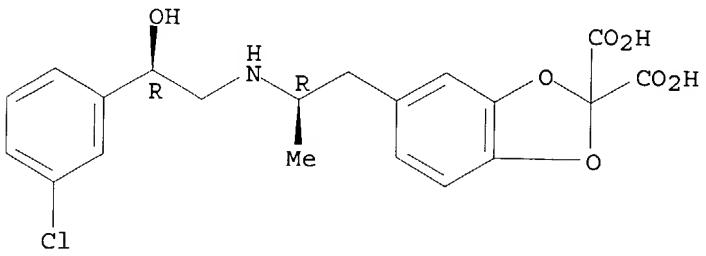
CC 1-8 (Pharmacology)
Section cross-reference(s): 2

IT 81047-99-6, CGP 12177 90730-96-4, BRL 37344 121524-09-2, SR 58611
138908-40-4, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(interspecies differences in cardiac neg. inotropic effects of β3-adrenoceptor agonists)

IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(interspecies differences in cardiac neg. inotropic effects of β3-adrenoceptor agonists)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:184269 HCAPLUS
DOCUMENT NUMBER: 130:237884
TITLE: Preparation of meta-benzamidine derivatives of amino acids or dipeptides as serine protease inhibitors
INVENTOR(S): Liebeschuetz, John Walter; Wylie, William Alexander; Waszkowycz, Bohdan; Murray, Christopher William; Rimmer, Andrew David; Welsh, Pauline Mary; Jones, Stuart Donald; Roscoe, Jonathan Michael Ernest; Young, Stephen Clinton; Morgan, Phillip John
PATENT ASSIGNEE(S): Proteus Molecular Design Ltd., UK
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911658	A1	19990311	WO 1998-GB2605	19980828
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9888757	A1	19990322	AU 1998-88757	19980828
EP 1009758	A1	20000621	EP 1998-940430	19980828
R: DE, FR, GB, IT				
US 2002055522	A1	20020509	US 2001-988082	20011119
US 6740682	B2	20040525		

US 2003216403	A1	20031120	US 2003-296245		20030514
US 2004143018	A1	20040722	US 2004-752568		20040108
PRIORITY APPLN. INFO.:			GB 1997-18392	A	19970829
			GB 1998-3173	A	19980213
			WO 1998-GB2605	W	19980828
			GB 1999-13823	A	19990614
			US 1999-142064P	P	19990702
			US 2000-485678	A2	20000225
			WO 2000-GB2291	A2	20000613
			WO 2001-GB2566	W	20010612
			US 2001-988082	A1	20011119

OTHER SOURCE(S): MARPAT 130:237884

AB Title compds. I [R1, R2 = H, OH, alkoxy, alkyl, aminoalkyl, hydroxyalkyl, alkoxyalkyl, alkoxycarbonyl, acyloxymethoxycarbonyl or alkylamino optionally substituted by hydroxy, alkylamino, alkoxy, oxo, aryl, cycloalkyl; R3 = R1, R2, amino, halo, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylsulfenyl, alkylsulfonamido, alkylaminosulfonyl, haloalkoxy, haloalkyl; X = C, N, O, S, CO, CR1, C(R1)2, NR1 with at least one X being C, CO, CR1 or C(R1)2, with the proviso that if the benzamidine group is unsubstituted and the X-X group is -CH2C(R1)2-, then R1 = H or attached to the alkylene carbon atom by a heteroatom; L = organic linker containing 1-5 backbone atoms selected from C, N, O and S, or a branched alkyl or cyclic group; Y = N, CR1; YL = cyclic group; Cy = (un)saturated, (poly)cyclic, (hetero)cyclic group optionally substituted by groups R3 or Ph optionally substituted by R3; Lp = lipophilic alkyl, heterocyclic, alkenyl, alkaryl, (poly)cycloalkyl, cycloalkenyl, aryl, aralkyl, haloalkyl, or a combination of two or more such groups optionally substituted by oxa, oxo, aza, thio, halo, amino, hydroxy or by R3; D = H bond donor group; n = 0-2] and their physiol. tolerable salts were prepared as serine protease inhibitors useful as antithrombotic agents. Synthesis methodol. for preparing some I was provided, and common starting materials were Fmoc- or Boc-(D)-phenylglycine and m-amidinobenzoic acid. Descriptions of enzyme **assays** were given, but no enzyme inhibition data was provided for I. To measure the antithrombotic activity, a partial thromboplastin time test **assay** was done, and for example, m-amidinobenzoyl-D-phenylglycine ester II (preparation not given, but 1H NMR characterization data provided), at 1.9 μM concentration, doubled the clotting time.

IC ICM C07K005-065
ICS C07K005-087; C07K005-107; A61K038-05; A61K038-06; A61K038-07; C07C257-18; C07D209-20; C07D317-60; C07D333-24; C07D207-14; C07D211-26; C07D207-16; C07D233-54; C07D211-30; C07D211-22; C07D211-34; C07D217-26; C07D295-18; C07D295-22

CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 7

IT

221231-09-0P	221231-13-6P	221231-20-5P	221231-27-2P	221231-34-1P
221231-41-0P	221231-49-8P	221231-56-7P **221231-62-5P**		
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221277-26-5P	221277-28-7P	221277-31-2P	221277-33-4P	221277-34-5P
221277-35-6P	221277-36-7P	221277-37-8P	221277-38-9P	221277-39-0P

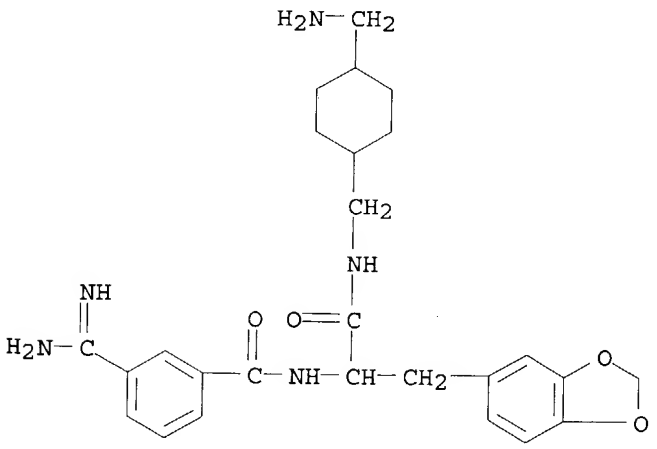
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of meta-benzamidine derivs. of amino acids or dipeptides as serine protease inhibitors)

IT **221231-62-5P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of meta-benzamidine derivs. of amino acids or dipeptides as serine protease inhibitors)

RN 221231-62-5 HCAPLUS

CN 1,3-Benzodioxole-5-propanamide, α-[[3-(aminoiminomethyl)benzoyl]amino]-N-[[4-(aminomethyl)cyclohexyl]methyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

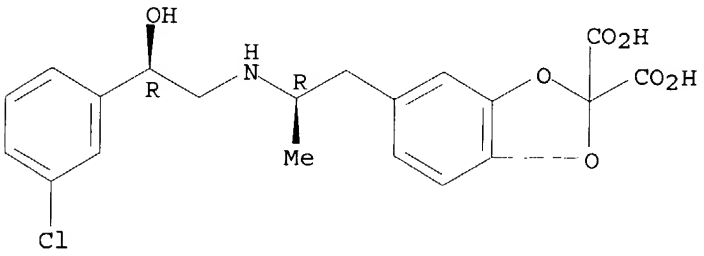
L8 ANSWER 24 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:171170 HCAPLUS
DOCUMENT NUMBER: 130:321109
TITLE: Functional and molecular biological evidence for a possible β3-adrenoceptor in the human detrusor muscle
AUTHOR(S): Igawa, Yasuhiko; Yamazaki, Yoshinobu; Takeda, Hiroo; Hayakawa, Kohichi; Akahane, Masuo; Ajisawa, Yukiyoshi; Yoneyama, Takehisa; Nishizawa, Osamu; Andersson, Karl-Erik
CORPORATE SOURCE: Department of Urology, Shinshu University School of Medicine, Matsumoto, 390-8621, Japan
SOURCE: British Journal of Pharmacology (1999), 126(3), 819-825
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Stockton Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The possible existence of a β3-adrenergic receptor (β3-AR) in the human detrusor muscle was investigated by in vitro functional studies and anal. of mRNA expression. Isoprenaline, noradrenaline and adrenaline each produced a concentration-dependent relaxation of the human detrusor. The rank order for their relaxing potencies was isoprenaline (pD2 6.37) ≥ noradrenaline (pD2 6.07) ≥ adrenaline (pD2 5.88). Neither dobutamine (β1- and β2-AR agonist) nor procaterol (β2-AR agonist) produced any significant relaxation at concns. up to 10-5 M. BRL 37344A, CL 316243 and CGP-12177A (β3-AR agonists), relaxed the prepns. significantly at concns. higher than 10-6 M. The pD2 values for BRL 37344A, CL316243 and CGP-12177A were 6.42, 5.53 and 5.74, resp. CGP-20712A (10-7 - 10-5 M), a β1-AR antagonist, did not affect the isoprenaline-induced relaxation. On the other hand, ICI-118,551, a β2-AR antagonist, produced a rightward parallel shift of the concentration-relaxation curve for isoprenaline only at the highest concentration used (10-5 M) and its pKB value was 5.71. Moreover, SR 58894A (10-7 - 10-5 M), a β3-AR antagonist, caused a rightward shift of the concentration-relaxation curve for isoprenaline in a concentration-dependent manner. The pA2 value and slope obtained from Schild plots were 6.24 and 0.68. The β1-, β2- and β3-AR mRNAs were all pos. expressed in detrusor smooth muscle prepns. in a reverse transcription polymerase chain reaction **assay**. In conclusion, the present results provide the first evidence for the existence of the β3-AR subtype in the human detrusor. They also suggest that the relaxation induced by adrenergic stimulation of the human detrusor is mediated mainly through β3-AR activation.

CC 2-8 (Mammalian Hormones)
IT 51-41-2, Noradrenaline 51-43-4, Adrenaline 7683-59-2, Isoprenaline 64208-32-8, CGP 12177A 127299-93-8, BRL 37344A **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor functional pharmacol. characterization and mRNA expression in human detrusor muscle)
IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor functional pharmacol. characterization and mRNA expression in human detrusor muscle)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 25 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:113712 HCAPLUS
DOCUMENT NUMBER: 130:168662
TITLE: Preparation of N-sulfonylproline dipeptide derivatives and analogs as inhibitors of leukocyte adhesion mediated by VLA-4
INVENTOR(S): Thorsett, Eugene D.; Semko, Christopher M.; Pleiss, Michael A.; Kreft, Anthony; Konradi, Andrei W.; Grant, Francine S.; Baudy, Reinhardt Bernhard; Sarantakis, Dimitrios
PATENT ASSIGNEE(S): Athena Neurosciences, Inc., USA; American Home Products Corporation
SOURCE: PCT Int. Appl., 294 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906437	A1	19990211	WO 1998-US16070	19980731
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9888234	A1	19990222	AU 1998-88234	19980731
EP 994896	A1	20000426	EP 1998-939871	19980731
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

BR 9811594	A	20000905	BR 1998-11594		19980731
JP 2001512139	T2	20010821	JP 2000-505192		19980731
NO 2000000452	A	20000327	NO 2000-452		20000128
PRIORITY APPLN. INFO.:			US 1997-904423	A2	19970731
			WO 1998-US16070	W	19980731

OTHER SOURCE(S): MARPAT 130:168662

AB Disclosed are title compds. R1SO2NR2CHR3QCHR5COR6 [R1 = (un)substituted alkyl, (un)substituted aryl, (un)substituted cycloalkyl, (un)substituted heterocyclyl; R2 = H, any group R1; R1R2 may form (un)substituted heterocyclic ring; R3 = H, any group R1; R2R3 may form (un)substituted heterocyclic ring; R5 = CH2X1; X1 = H, OH, acylamino, (un)substituted alkyl, alkoxy, aryloxy, aryl, aryloxyaryl, CO2H, carboxyalkyl, carboxyaryl, carboxyheteroaryl, (un)substituted cycloalkyl, (un)substituted heterocyclyl; Q = C(X)NR7; R7 = H, alkyl; X = O, S; R6 = NH2, (un)substituted alkoxy, (un)substituted cycloalkoxy, succinimidyloxy, adamantylamino, β-cholest-5-en-3-yloxy, NHOY, NH(CH2)pCO2Y, OCH2NR9R10; Y = H, (un)substituted alkyl, (un)substituted aryl; p = 1-8; R9 = (un)substituted CO-aryl; R10 = H, CH2CO2R11, NHSO2Z'; R11 = alkyl; Z' = (un)substituted alkyl, (un)substituted cycloalkyl, (un)substituted aryl, (un)substituted heteroaryl, (un)substituted heterocyclyl; and pharmaceutically acceptable salts thereof, with provisos] which bind VLA-4 (also referred to as integrin α4β1 and CD49d/CD29). Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, wherein the disease may be, for example, asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, BOP-mediated peptide coupling of Ts-Pro-OH (Ts = tosyl) with H-Tyr-OMe gave 75% of the corresponding ester, which underwent saponification in quant. yield to give desired dipeptide Ts-Pro-Tyr-OH. All prepared compds. have IC50 ≤ 15 μM in a VLA-4 binding **assay**.

IC ICM C07K005-078
ICS A61K038-05

CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 1, 15, 63

IT

4902-49-2P	220302-20-5P	220302-23-8P	220302-24-9P	220302-25-0P
220302-26-1P	220302-27-2P	220302-28-3P	220302-29-4P	220302-30-7P
220302-31-8P	220302-32-9P	220302-33-0P	220302-34-1P	220302-35-2P
220302-36-3P	220302-37-4P	220302-38-5P	220302-39-6P	220302-40-9P
220302-41-0P	220302-42-1P	220302-43-2P	220302-44-3P	220302-45-4P
220302-46-5P	220302-47-6P	220302-48-7P	220302-49-8P	220302-50-1P
220302-51-2P	220302-52-3P	**220302-53-4P**	220302-54-5P	
220302-55-6P	220302-56-7P	220302-59-0P	220302-60-3P	220302-63-6P
220302-64-7P	220302-65-8P	220302-66-9P	220302-68-1P	220302-70-5P
220302-71-6P	220302-73-8P	220302-74-9P	220302-75-0P	220302-76-1P
220302-78-3P	220302-79-4P	220302-81-8P	220302-83-0P	220302-84-1P
220302-87-4P	220302-88-5P	220302-89-6P	220302-90-9P	220302-92-1P
220302-94-3P	220302-95-4P	220302-97-6P	220302-98-7P	220303-00-4P
220303-01-5P	220303-02-6P	220303-03-7P	220303-05-9P	220303-06-0P
220303-08-2P	220303-09-3P	220303-10-6P	220303-11-7P	220303-12-8P
220303-13-9P	220303-14-0P	220303-15-1P	220303-16-2P	220303-17-3P
220303-18-4P	220303-19-5P	220303-20-8P	220303-21-9P	220303-23-1P
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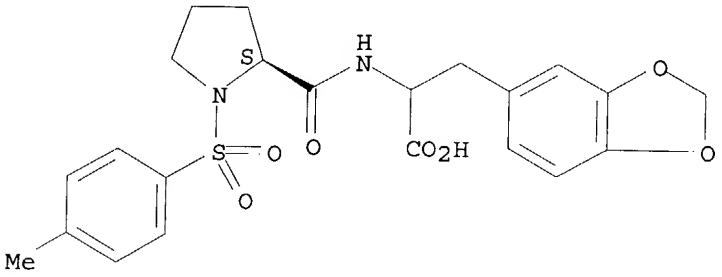
220303-31-1P	220303-32-2P	220303-33-3P	220303-34-4P	220303-35-5P
220303-36-6P	220303-37-7P	220303-38-8P	220303-39-9P	220303-40-2P

220303-41-3P 220303-42-4P 220303-43-5P 220303-44-6P 220303-45-7P
220303-46-8P 220303-47-9P 220303-49-1P 220303-50-4P 220303-51-5P
220303-52-6P 220303-53-7P 220303-54-8P 220303-55-9P 220303-56-0P
220303-57-1P 220303-58-2P 220303-59-3P 220303-60-6P 220303-61-7P
220303-62-8P 220303-63-9P 220365-30-0P 220365-31-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N-sulfonylproline dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)

IT **220302-53-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of N-sulfonylproline dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)

RN 220302-53-4 HCAPLUS
CN Alanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-3-(1,3-benzodioxol-5-yl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 26 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:743877 HCAPLUS
DOCUMENT NUMBER: 130:119495
TITLE: Beta-3 adrenergic receptor agonists cause an increase in gastrointestinal transit time in wild-type mice, but not in mice lacking the beta-3 adrenergic receptor
AUTHOR(S): Fletcher, Daniel S.; Candelore, Mari Rios; Grujic, Danica; Lowell, Bradford B.; Luell, Silvi; Susulic, Vedrana S.; Macintyre, D. Euan
CORPORATE SOURCE: Department of Pharmacology, Merck and Co., Rahway, NJ, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1998), 287(2), 720-724
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Lippencott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of beta-3 adrenergic receptor (β3-AR) agonists on gastrointestinal (GI) motility, as reported by stomach retention and intestinal transit of radiolabeled charcoal, were compared in wild-type (WT) mice and in transgenic mice lacking β3-AR (β3-AR[KO]) or having β3-AR in white and brown adipose tissue only (β3-AR[WAT +

BAT]). After s.c. administration of 3 mg/kg of the selective, rodent specific β3-AR agonists BRL 35135, CL 316,243 or ICI 198,157, WT mice exhibited a significant decrease in the extent of movement of **radiotracer** through the stomach and intestines, indicative of decreased GI motility. These compds. also caused an increase in plasma glycerol levels in the WT mice, suggesting that increased lipolysis in adipose tissue had been evoked. None of these compds. had an effect on GI motility or evoked lipolysis in the β3-AR[KO] mice. Treatment of WT mice with SR 58611A, a β3-AR agonist that exhibited a relatively lower affinity for rodent β3-AR in vitro, did not affect GI motility or plasma glycerol levels in WT or β3[KO] mice when administered s.c. at 3 mg/kg. Clonidine, an alpha-2 adrenergic receptor agonist, used as a pos. control in these GI studies, caused a decrease in GI motility in both WT and β3-AR[KO] mice. These results are consistent with a postulated role for β3-AR in regulation of GI motility in the mouse. However, treatment of β3-AR[WAT + BAT] mice with 3 mg/kg BRL 35135 resulted in elevated plasma glycerol levels, as well as increased stomach retention and decreased intestinal transit of **radiotracer**. These results suggest that this β3-AR agonist may exert its effects on the GI tract indirectly, through an unknown signaling mechanism activated by agonism of β3-AR in adipose tissue.

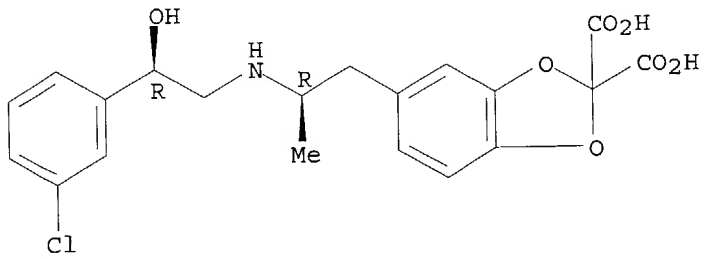
CC 1-11 (Pharmacology)
Section cross-reference(s): 2

IT 86615-96-5, BRL 35135 107332-58-1, ICI 198157 121524-09-2, SR 58611A
138908-40-4, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(beta-3 adrenergic receptor agonists cause increase in gastrointestinal transit time in wild-type mice but not in mice lacking beta-3 adrenergic receptor in relation to effect of lipolysis by adipose tissue)

IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(beta-3 adrenergic receptor agonists cause increase in gastrointestinal transit time in wild-type mice but not in mice lacking beta-3 adrenergic receptor in relation to effect of lipolysis by adipose tissue)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 27 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:122129 HCAPLUS
DOCUMENT NUMBER: 128:239539
TITLE: Validity of (-)-[3H]-CGP 12177A as a radioligand for the "putative β4-adrenoceptor" in rat atrium
AUTHOR(S): Sarsero, Doreen; Molenaar, Peter; Kaumann, Alberto J.
CORPORATE SOURCE: Department of Pharmacology, University of Melbourne, Parkville, 3052, Australia
SOURCE: British Journal of Pharmacology (1998), 123(3), 371-380
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Stockton Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have recently suggested the existence in the heart of a "putative β4-adrenoceptor" based on the cardiostimulant effects of non-conventional partial agonists, compds. that cause cardiostimulant effects at greater concns. than those required to block β1- and β2-adrenoceptors. We sought to obtain further evidence by establishing and validating a radioligand binding **assay** for this receptor with (-)-[3H]-CGP 12177A ((-)-4-(3-tertiarybutylamino-2-hydroxypropoxy) benzimidazol-2-one) in rat atrium. We investigated (-)-[3H]-CGP 12177A for this purpose for two reasons, because it is a non-conventional partial agonist and also because it is a hydrophilic radioligand. Increasing concns. of (-)-[3H]-CGP 12177A, in the absence or presence of 20 μM (-)-CGP 12177A to define non-specific binding, resulted in a biphasic saturation isotherm. Low concns. bound to β1- and β2-adrenoceptors (pKD 9.4±0.1, Bmax 26.9±3.1 fmol mg-1 protein) and higher concns. bound to the "putative β4-adrenoceptor" (pKD 7.5±0.1, Bmax 47.7±4.9 fmol mg-1 protein). In other expts. designed to exclude β1- and β2-adrenoceptors, (-)-[3H]-CGP 12177A (1-200 nM) binding in the presence of 500 nM (-)-propranolol was also saturable (pKD 7.6±0.1, Bmax 50.8±7.4 fmol mg-1 protein). The non-conventional partial agonists (-)-CGP 12177A (pKi 7.3±0.2), (±)-cyanopindolol (pKi 7.6±0.2), (-)-pindolol (pKi 6.6±0.1) and (±)-carazolol (pKi 7.2±0.2) and the antagonist (-)-bupranolol (pKi 6.6±0.2), all competed for (-)-[3H]-CGP 12177A binding in the presence of 500 nM (-)-propranolol at the "putative β4-adrenoceptor", with affinities closely similar to potencies and affinities determined in organ bath studies. The catecholamines competed with (-)-[3H]-CGP 12177A at the "putative β4-adrenoceptor" in a stereoselective manner, (-)-noradrenaline (pKiH 6.3±0.3, pKiL 3.5±0.1), (-)-adrenaline (pKiH 6.5±0.2, pKiL 2.9±0.1), (-)-isoprenaline (pKiH 6.2±0.5, pKiL 3.4±0.1), (+)-isoprenaline (pKi<1.7), (-)-RO363 ((-)-(1-(3,4-dimethoxyphenethylamino)-3-(3,4-dihydroxyphenoxy)-2-propranol)oxalate, pKi 5.5±0.1). The inclusion of guanosine 5-triphosphate (GTP 0.1 mM) had no effect on binding of (-)-CGP 12177A or (-)-isoprenaline to the "putative β4-adrenoceptor". In competition binding studies, (-)-CGP 12177A competed with (-)-[3H]-CGP 12177A for one receptor state in the absence (pKi 7.3±0.2) or presence of GTP (pKi 7.3±0.2). (-)-Isoprenaline competed with (-)-[3H]-CGP 12177A for two states in the absence (pKiH 6.6±0.3, pKiL 3.5±0.1; % H 25±7) or presence of GTP (pKiH 6.2±0.5, pKiL 3.4±0.1; % H 37±6). In contrast, at β1-adrenoceptors, GTP stabilized the low affinity state of the receptor for (-)-isoprenaline. The specificity of binding to the "putative β4-adrenoceptor" was tested with compds. active at other

receptors. High concns. of the β3-adrenoceptor agonists, BRL 37344 ((RR + SS)[4-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]phenoxy]acetic acid, 6 μM), SR 58611A (ethyl{(7S)-7-[(2R)-2-(3-chlorophenyl)-2-hydroxyethylamino]-5,6,7,8-tetrahydronaphtyl-2-yloxy} acetate hydrochloride, 6 μM), ZD 2079 ((±)-1-phenyl-2-(2-4-carboxymethylphenoxy)-ethylamino)-ethan-1-ol, 60 μM, CL 316243 (disodium (R,R)-5-[2-[2-(3-chlorophenyl)-2-hydroxyethyl-amino]propyl]-1,3-benzodioxole-2,2-dicarboxylate, 60 μM) and antagonist SR 59230A (3-(2-ethylphenoxy)-1-[(1S)-1,2,3,4-tetrahydronaphth-1-ylamino]-2S-2-propanol oxalate, 6 μM) caused less than 22% inhibition of (-)-[3H]-CGP 12177A binding in the presence of 500 nM (-)-propranolol. Histamine (1 mM), atropine (1 μM), phentolamine (10 μM), 5-HT (100 μM) and the 5-HT4 receptor antagonist SB 207710 ((1-butyl-4-piperidinyl)-Me-8-amino-7-iodo-1,4-benzodioxan-5-carboxylate, 10 nM) caused less than 26% inhibition of binding. Non-conventional partial agonists, the antagonist (-)-bupranolol and catecholamines all competed for (-)-[3H]-CGP 12177A binding in the absence of (-)-propranolol at β1-adrenoceptors, with affinities (pKi) ranging from 1.6-3.6 log orders greater than at the "putative β4-adrenoceptor". We have established and validated a radioligand binding **assay** in rat atrium for the "putative β4-adrenoceptor" which is distinct from β1-, β2- and β3-adrenoceptors. The stereoselective interaction with the catecholamines provides further support for the classification of the receptor as "putative β4-adrenoceptor".

CC 2-1 (Mammalian Hormones)
Section cross-reference(s): 1

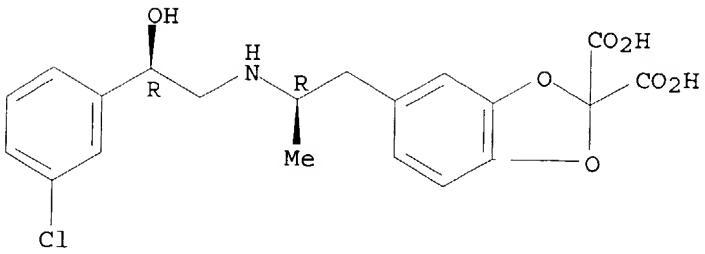
IT 50-60-2, Phentolamine 50-67-9, Serotonin, biological studies 51-31-0, (-)-Isoprenaline 51-41-2, (-)-Noradrenaline 51-43-4, (-)-Adrenaline 51-45-6, Histamine, biological studies 51-55-8, Atropine, biological studies 2964-04-7, (+)-Isoprenaline 4199-09-1, (-)-Propranolol 26328-11-0, (-)-Pindolol 38104-34-6, (-)-Bupranolol 57775-29-8, (±)-Carazolol 69906-85-0, (±)-Cyanopindolol 74513-77-2, RO 363 90730-96-4, BRL 37344 95840-76-9, (-)-CGP 12177 121524-09-2, SR 58611A **138908-40-4**, CL 316243 148703-08-6, SB 207710 174689-39-5, SR 59230A 178600-17-4, ZD 2079
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(validity of (-)-[3H]-CGP 12177A as a radioligand for putative β4-adrenoceptor in rat atrium in relation to competitive binding **assays** with other agonists and antagonists)

IT 95833-00-4
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(validity of (-)-[3H]-CGP 12177A as a radioligand for putative β4-adrenoceptor in rat atrium in relation to competitive binding **assays** with other agonists and antagonists)

IT **138908-40-4**, CL 316243
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(validity of (-)-[3H]-CGP 12177A as a radioligand for putative β4-adrenoceptor in rat atrium in relation to competitive binding **assays** with other agonists and antagonists)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 28 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:733559 HCAPLUS
DOCUMENT NUMBER: 127:328533
TITLE: Gas chromatographic/mass spectrometric **assay** for profiling the enantiomers of 3,4-methylenedioxymethamphetamine and its chiral metabolites using positive chemical ion trap mass spectrometry
AUTHOR(S): de Boer, D.; Tan, L. P.; Gorter, P.; van de Wal, R. M. A.; Kettenes-van den Bosch, J. J.; de Bruijn, E. A.; Maes, R. A. A.
CORPORATE SOURCE: Department of Human Toxicology, Utrecht Institute for Pharmaceutical Sciences, University of Utrecht, Utrecht, 3583 TC, Neth.
SOURCE: Journal of Mass Spectrometry (1997), 32(11), 1236-1246
CODEN: JMSPFJ; ISSN: 1076-5174
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A qual. GC/MS profile was obtained and its mass spectrometric features characterized for the anal. of the enantiomers of (RS)-3,4-methylenedioxymethamphetamine (MDMA) and its metabolites (RS)-3,4-methylenedioxyamphetamine (MDA), (RS)-4-hydroxy-3-methoxymethamphetamine (HMMA) and (RS)-4 hydroxy-3-methoxyamphetamine (IMA). A chiral derivatization method was selected to obtain the diastereomers required for the separation of the resp. enantiomers with a non-chiral GC stationary phase. The selected derivatization consisted of a reaction with N-heptafluorobutyryl-(S)-prolyl chloride combined with a consecutive reaction with N-methyl-N-trimethylsilyltrifluoroacetamide, resulting in N-[heptafluorobutyryl-(S)-prolyl]-O-trimethylsilyl derivs. Detection was carried out with electron ionization and pos. chemical ionization (PCI) ion trap mass spectrometry. Mass spectra of the derivs. of reference stds. of the compds. of interest obtained with PCI demonstrated that this method simultaneously induces proton and charge-transfer reactions in the ion trap. The advantage is that high mass information is provided while some fragmentation remains to elucidate structural details Subsequently, in three urine samples obtained from different and unrelated MDMA intoxications, the enantiomers of MDMA and MDA were identified. In some urine samples also HMMA and/or HMA were found. In addition to these compds., an unexpected compound and/or addnl. chiral metabolite, N-hydroxy-(RS)-3,4-

methylenedioxyamphetamine, was identified in two out of three urine samples. Preliminary results also indicated an enantioselective metabolism in the N-demethylation pathway for MDMA in humans.

CC 9-3 (Biochemical Methods)

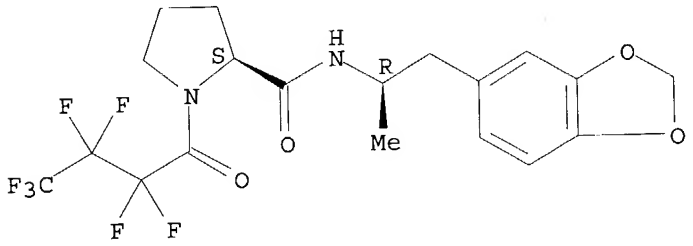
IT 4764-17-4, 3,4-Methylenedioxyamphetamine 13026-44-3, 4-Hydroxy-3-methoxyamphetamine 42542-10-9, 3,4-Methylenedioxymethamphetamine 61614-60-6 65620-66-8 66142-89-0 81262-70-6 117652-28-5 **150163-98-7 150163-99-8** 150200-02-5 150200-03-6 150200-04-7 150200-05-8 198017-93-5 198017-94-6 198017-95-7 198017-96-8 **198017-97-9** **198017-98-0**
RL: ANT (Analyte); ANST (Analytical study)
(determination of chiral metabolites of 3,4-methylenedioxymethamphetamine in urine by gas chromatog./mass spectrometry)

IT **150163-98-7 150163-99-8 198017-97-9** **198017-98-0**
RL: ANT (Analyte); ANST (Analytical study)
(determination of chiral metabolites of 3,4-methylenedioxymethamphetamine in urine by gas chromatog./mass spectrometry)

RN 150163-98-7 HCAPLUS

CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

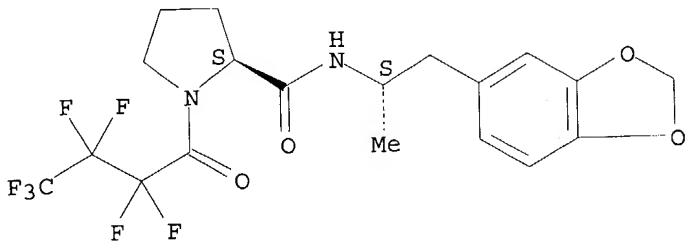
Absolute stereochemistry.



RN 150163-99-8 HCAPLUS

CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

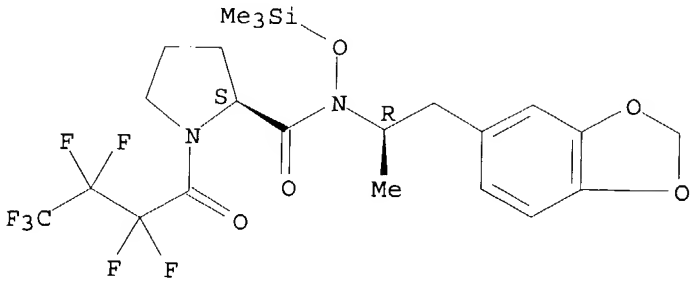
Absolute stereochemistry.



RN 198017-97-9 HCAPLUS

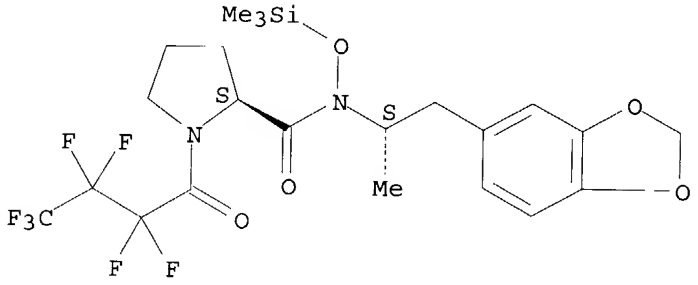
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-[(trimethylsilyl)oxy]-, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 198017-98-0 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-[(trimethylsilyl)oxy]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 29 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:725839 HCAPLUS
DOCUMENT NUMBER: 126:73271
TITLE: Effects of hypothyroidism on brown adipose tissue adenylyl cyclase activity
AUTHOR(S): Carvalho, Suzy D.; Bianco, Antonio C.; Silva, J. Enrique
CORPORATE SOURCE: Div. Endocrinol., McGill Univ., Montreal, QC, H3T 1E2, Can.
SOURCE: Endocrinology (1996), 137(12), 5519-5529
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hypothyroidism profoundly reduces the capacity of brown adipose tissue (BAT) to generate cAMP in response to adrenergic stimulation. Evidence obtained with isolated brown adipocytes suggests a postreceptor defect that offsets the hypothyroidism-induced increase in β3-adrenergic receptors. The goal of the present studies was to identify the defect in the cAMP generation pathway for which we studied cAMP generation in isolated cells and purified BAT membranes from normal and hypothyroid rats. Studies with adenosine deaminase and the adenosine receptor-1 agonist R-phenylisopropyladenosine (R-PIA) show that hypothyroid cells are not more sensitive to adenosine (same EC50) but more inhibited by high

concns. of R-PIA. Pretreatment with pertussis toxin reduced the gap in cAMP generation between eu- and hypothyroid cells and the inhibition mediated by R-PIA, but did not normalize the cAMP response to forskolin in hypothyroid cells. Although purified euthyroid BAT membranes increased cAMP production with GTP concns. up to submillimolar range, to plateau or slightly decrease at higher levels, hypothyroid membranes were weakly stimulated by low concns. of GTP and markedly inhibited (>50%) at concns. ≥10-4 M. When **assayed** at 0.3 mM ATP and 1 μM GTP, hypothyroid membranes actually generated more cAMP in response to forskolin, but this was reversed when GTP concentration was 1 mM.

Immunoblotting

studies showed no significant effects of hypothyroidism on the abundance of Gα1 or Gβ subunits, and ADP ribosylation of Gαi was only 45% increased in hypothyroidism in contrast to a 2.5-fold increase in hypothyroid white adipose tissue membranes from the same rats. Hypothyroid membranes also exhibited different kinetics regarding ATP, with higher cAMP generation at submillimolar concns. but less at >1 mM ATP. Actually, at ATP concns. >0.6 mM, cAMP generation was markedly inhibited in hypothyroid membranes. Fixing the concentration of free Mg++ in these expts. indicates that most of the inhibition seen in hypothyroid membranes is caused by ATP, whereas euthyroid membranes are more sensitive to changes in free Mg++. Ca++ ± calmodulin did not stimulate adenylyl cyclase (AC) activity. On the contrary, AC activity was inhibited by Ca++ in a concentration-dependent manner, by as low as 100 nM free Ca++, and to greater extent in hypo- than in euthyroid membranes (maximal inhibition 60 vs. 25-30%). Our results suggest that, functionally, hypothyroidism causes a change in the AC of BAT membranes consistent with a relative or absolute increase in the type VI AC (AC-VI). The effects on this AC of nucleotides, Ca++, and Mg++ at concns. prevailing in the hypothyroid brown adipocyte are probably the major factor in the reduced capacity of these cells to generate cAMP. These results also open the possibility of a novel, differential effect of thyroid hormone on AC expression, and support the concept that thyroid hormone affects the adrenergic signal transduction pathways in a tissue-selective manner.

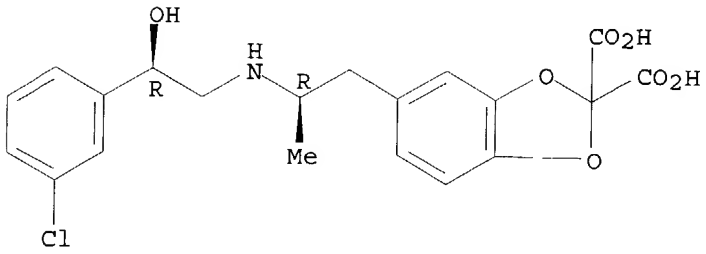
CC 14-8 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 2

IT 51-41-2, Norepinephrine 56-65-5, biological studies 58-61-7, Adenosine, biological studies 86-01-1, 5'-GTP 7439-95-4, Magnesium, biological studies 7440-70-2, Calcium, biological studies 38594-96-6, R-Phenylisopropyladenosine **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(hypothyroidism effect on brown adipose tissue adenylyl cyclase in relation to thyroid hormone alteration of adrenergic signal transduction)

IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(hypothyroidism effect on brown adipose tissue adenylyl cyclase in relation to thyroid hormone alteration of adrenergic signal transduction)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:621746 HCAPLUS
DOCUMENT NUMBER: 125:265025
TITLE: 1,2,3,4-Tetrahydroisoquinoline and related analogs of the phenylalkylamine designer drug MDMA
AUTHOR(S): Malmusi, Luca; Dukat, Malgorzata; Young, Richard; Teitler, Milt; Darmani, Nissar A.; Ahmad, Bashir; Smith, Carol; Glennon, Richard A.
CORPORATE SOURCE: Dep. Medicinal Chem., Medical College Virginia/Virginia Commonwealth Univ., Richmond, VA, 23298, USA
SOURCE: Medicinal Chemistry Research (1996), 6(6), 412-426
CODEN: MCREEB; ISSN: 1054-2523
PUBLISHER: Birkhaeuser
DOCUMENT TYPE: Journal
LANGUAGE: English

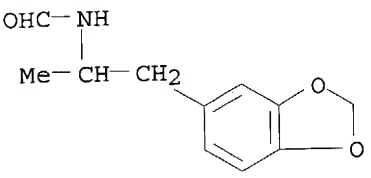
AB 1,2,3,4-Tetrahydroisoquinoline (TIQ) analogs of 1-(3,4-methylenedioxyphenyl)-2-aminopropane (MDA) and its N-Me derivative, MDMA, similar in structure to a TIQ metabolite of MDA, were prepared and examined (a) in tests of central stimulant activity in mice, (b) for their ability to bind at human 5-HT2α receptors, and (c) in tests of stimulus generalization in rats trained to discriminate MDMA from vehicle. In general, the TIQ analogs failed to display appreciable activity in any **assay** system. Conversely, certain 2-aminotetralin and 2-aminoindan analogs were active in the stimulus generalization studies. It is concluded that TIQ-like conformations do not account for the actions typically associated with MDA- and MDMA-related agents.

CC 1-3 (Pharmacology)
Section cross-reference(s): 28

IT **67669-00-5P** 90832-54-5P 182634-33-9P 182634-34-0P, 1,3-Benzodioxole-4-methanamine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation and structure-activity relations for tetrahydroisoquinoline and related analogs of phenylalkylamine designer drug MDMA)

IT **67669-00-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation and structure-activity relations for tetrahydroisoquinoline and related analogs of phenylalkylamine designer

drug MDMA)
RN 67669-00-5 HCAPLUS
CN Formamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 31 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:490371 HCAPLUS
DOCUMENT NUMBER: 125:221016
TITLE: Negative-ion chemical ionization of amphetamine derivatives
AUTHOR(S): Kaufman, Melvin S.; Hatzis, Alexander C.; Stuart, John G.
CORPORATE SOURCE: Armstrong Lab. Drug Testing Div., Brook AFB, TX, 78235-5240, USA
SOURCE: Journal of Mass Spectrometry (1996), 31(8), 913-920
CODEN: JMSPFJ; ISSN: 1076-5174
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The neg.-ion chemical ionization (NICI) mass spectra of the heptafluorobutyryl (HFB) and pentafluorobenzoyl (PFBz) derivs. of serval amphetamines and N-substituted amphetamines were obtained. The HFB derivs. of amphetamine and its ring-substituted congeners were each found to undergo predominant loss of one mol. of hydrogen fluoride, while the corresponding PFBz derivs. each underwent sequential loss of two mols. of hydrogen fluoride followed by the loss of either a Me or an aryl group. The HFB derivs. of the N-substituted amphetamines were found to undergo sequential loss of four mols. of hydrogen fluoride while the corresponding PFBz derivs. produced high-abundance mol. ions. NICI mass spectra of deuterium-**labeled** amphetamine derivs. were obtained and the order of hydrogen elimination was studied. These findings explain previous observations of hydrogen fluoride loss by the amphetamine derivs. and define potential applications of NICI mass spectrometry to the anal. of these compds.

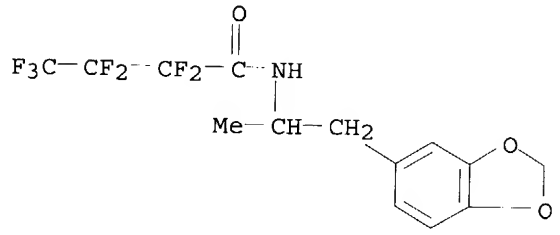
CC 22-8 (Physical Organic Chemistry)
Section cross-reference(s): 1

IT 38771-48-1 90582-01-7 156572-16-6 156572-17-7 156572-18-8
156572-19-9 156572-20-2 156572-21-3
156572-24-6 156572-25-7 **156572-27-9** 181659-24-5
181659-25-6 181659-26-7 181659-27-8 181659-28-9 181659-29-0
181659-30-3 181659-31-4 181659-32-5 **181659-33-6**
181659-34-7 181659-35-8 **181659-36-9 181659-37-0**
181659-38-1 181659-39-2 181659-40-5 181659-41-6 **181659-42-7**
181659-43-8 181659-44-9 181659-45-0 **181659-46-1**
181659-47-2 181659-48-3 181659-49-4 181659-50-7
181659-51-8 181659-52-9 181659-53-0 **181659-54-1**
181659-55-2 181659-56-3 181659-57-4 181659-58-5 181659-59-6
181659-60-9 **181659-61-0** 181659-62-1 181659-63-2
181659-64-3 **181659-65-4 181659-66-5**

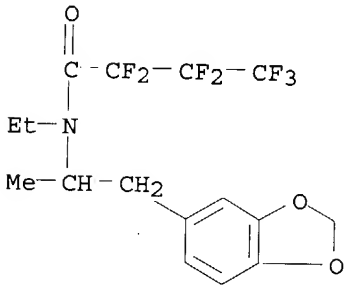
181659-67-6 181659-68-7
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(neg.-ion chemical ionization of amphetamine derivs.)

IT **156572-19-9 156572-20-2 156572-21-3**
156572-27-9 181659-30-3 181659-33-6
181659-36-9 181659-37-0 181659-42-7
181659-46-1 181659-47-2 181659-54-1
181659-61-0 181659-65-4 181659-66-5
181659-67-6 181659-68-7
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(neg.-ion chemical ionization of amphetamine derivs.)

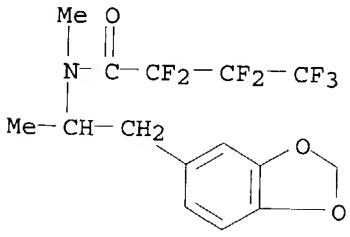
RN 156572-19-9 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,3,3,4,4,4-heptafluoro- (9CI) (CA INDEX NAME)



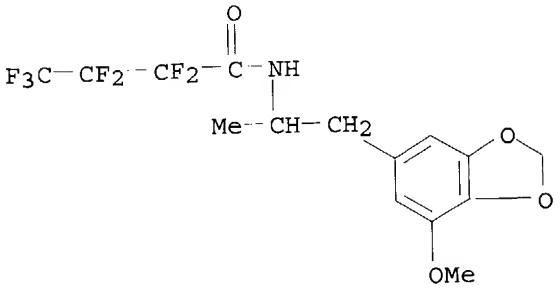
RN 156572-20-2 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-ethyl-2,2,3,3,4,4,4-heptafluoro- (9CI) (CA INDEX NAME)



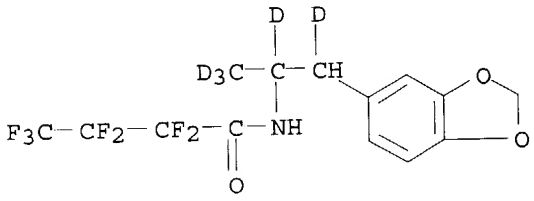
RN 156572-21-3 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,3,3,4,4,4-heptafluoro-N-methyl- (9CI) (CA INDEX NAME)



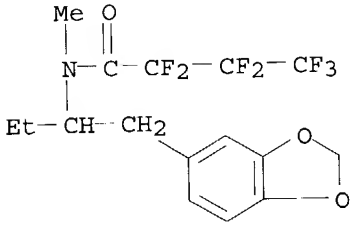
RN 156572-27-9 HCAPLUS
CN Butanamide, 2,2,3,3,4,4,4-heptafluoro-N-[2-(7-methoxy-1,3-benzodioxol-5-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)



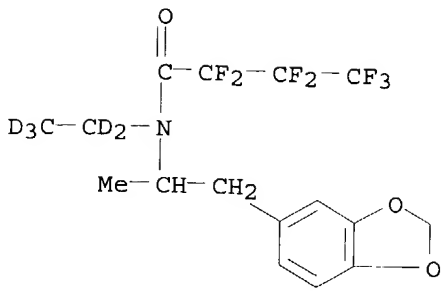
RN 181659-30-3 HCAPLUS
CN Butanamide, N-[1-(1,3-benzodioxol-5-ylmethyl-d)ethyl-1,2,2,2-d4]-2,2,3,3,4,4,4-heptafluoro- (9CI) (CA INDEX NAME)



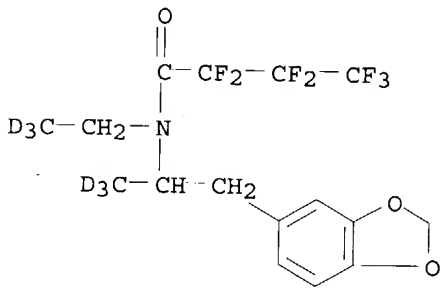
RN 181659-33-6 HCAPLUS
CN Butanamide, N-[1-(1,3-benzodioxol-5-ylmethyl)propyl]-2,2,3,3,4,4,4-heptafluoro-N-methyl- (9CI) (CA INDEX NAME)



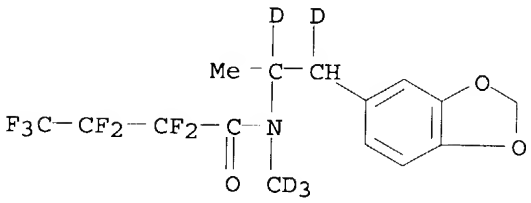
RN 181659-36-9 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-(ethyl-d5)-2,2,3,3,4,4,4-heptafluoro- (9CI) (CA INDEX NAME)



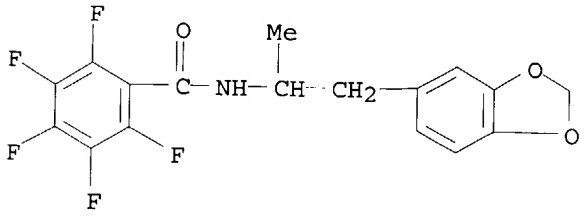
RN 181659-37-0 HCAPLUS
CN Butanamide, N-[1-(1,3-benzodioxol-5-ylmethyl)ethyl-2,2,2-d3]-N-(ethyl-2,2,2-d3)-2,2,3,3,4,4,4-heptafluoro- (9CI) (CA INDEX NAME)



RN 181659-42-7 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl-1,2-d2]-2,2,3,3,4,4,4-heptafluoro-N-(methyl-d3)- (9CI) (CA INDEX NAME)

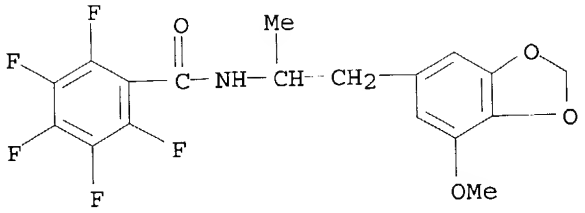


RN 181659-46-1 HCAPLUS
CN Benzamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)

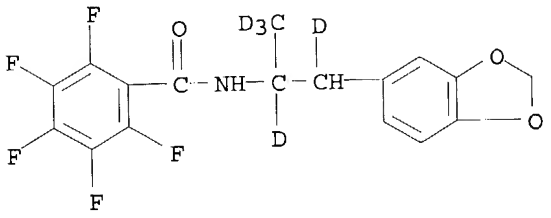


RN 181659-47-2 HCAPLUS

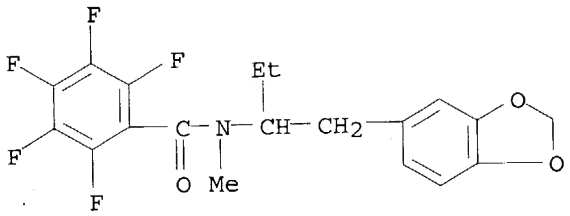
CN Benzamide, 2,3,4,5,6-pentafluoro-N-[2-(7-methoxy-1,3-benzodioxol-5-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)



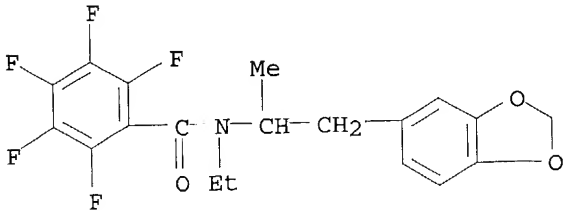
RN 181659-54-1 HCAPLUS
CN Benzamide, N-[1-(1,3-benzodioxol-5-ylmethyl-d)ethyl-1,2,2,2-d4]-2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)



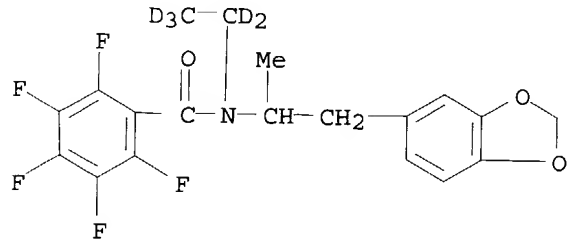
RN 181659-61-0 HCAPLUS
CN Benzamide, N-[1-(1,3-benzodioxol-5-ylmethyl)propyl]-2,3,4,5,6-pentafluoro-N-methyl- (9CI) (CA INDEX NAME)



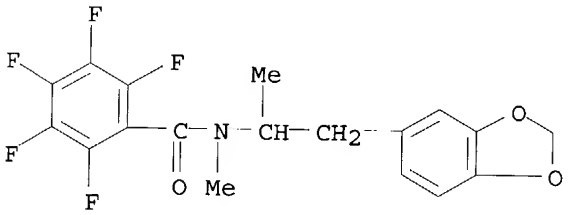
RN 181659-65-4 HCAPLUS
CN Benzamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-ethyl-2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)



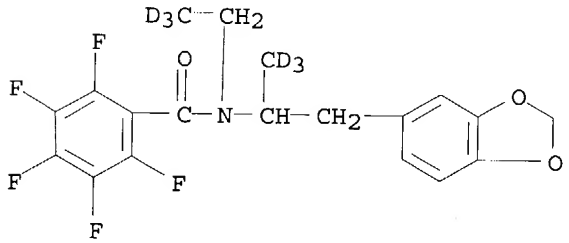
RN 181659-66-5 HCAPLUS
CN Benzamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-N-(ethyl-d5)-2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)



RN 181659-67-6 HCAPLUS
CN Benzamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,3,4,5,6-pentafluoro-N-methyl- (9CI) (CA INDEX NAME)



RN 181659-68-7 HCAPLUS
CN Benzamide, N-[1-(1,3-benzodioxol-5-ylmethyl)ethyl-2,2,2-d3]-N-(ethyl-2,2,2-d3)-2,3,4,5,6-pentafluoro- (9CI) (CA INDEX NAME)



L8 ANSWER 32 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:454656 HCAPLUS
DOCUMENT NUMBER: 125:133456
TITLE: Functional β3-adrenoceptor in the human heart
AUTHOR(S): Gauthier, Chantal; Tavernier, Genevieve; Charpentier, Flavien; Langin, Dominique; Le Marec, Herve
CORPORATE SOURCE: Fac. Sci. Techniques, Univ. Nantes, Nantes, 44035, Fr.
SOURCE: Journal of Clinical Investigation (1996), 98(2), 556-562
CODEN: JCINAO; ISSN: 0021-9738
PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal
LANGUAGE: English

AB β3-Adrenoceptors are involved in metabolism, gut relaxation, and vascular vasodilation. However, their existence and role in the human heart have not been documented. We investigated the effects of several β-adrenoceptor agonists and antagonists on the mech. properties of ventricular endomyocardial biopsies. In the presence of nadolol, a β1 and β2-adrenoceptor antagonist, isoprenaline produced consistent neg. inotropic effects. Similar neg. inotropic effects also resulted from the action of β3-adrenoceptor agonists with an order of potency: BRL 37344 > SR 58611 ≈ CL 316243 > CGP 12177. The dose-response curve to BRL 37344-decreasing myocardial contractility was not modified by pretreatment with nadolol, but was shifted to the right by bupranolol, a nonselective β-adrenoceptor antagonist. β3-Adrenoceptor agonists also induced a reduction in the amplitude and an acceleration in the repolarization phase of the human action potential. β3-Adrenoceptor transcripts were detected in human ventricle by a polymerase chain reaction **assay**. These results indicate that: (a) β3-adrenoceptors are present and functional in the human heart; and (b) these receptors are responsible for the unexpected neg. inotropic effects of catecholamines and may be involved in pathophysiol. mechanisms leading to heart failure.

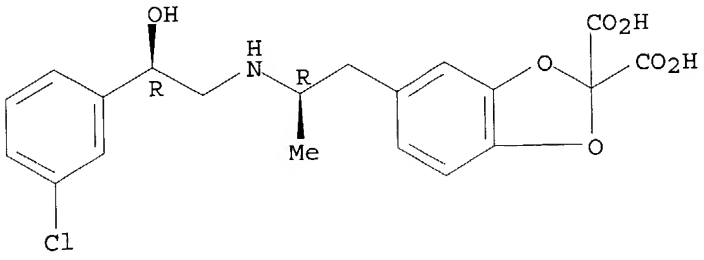
CC 2-8 (Mammalian Hormones)
Section cross-reference(s): 1

IT 7683-59-2, Isoprenaline 81047-99-6, CGP 12177 90730-96-4, BRL 37344 121524-08-1, SR 58611 **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor agonist neg. inotropic activity in human heart)

IT **138908-40-4**, CL 316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(β3-adrenoceptor agonist neg. inotropic activity in human heart)

RN 138908-40-4 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L8 ANSWER 33 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:71559 HCAPLUS
DOCUMENT NUMBER: 124:261016

TITLE: β3-Adrenergic benzodioxoledicarboxylates and their use in pharmaceutical compositions as antidiabetic and antiobesity agents.

INVENTOR(S): Epstein, Joseph W.; Birnberg, Gary H.; Dutia, Minu D.; Claus, Thomas H.; Largis, Elwood E.

PATENT ASSIGNEE(S): American Cyanamid Company, USA

SOURCE: U.S., 11 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5480908	A	19960102	US 1993-166115	19931213
ZA 9409874	A	19950821	ZA 1994-9874	19941212
US 5606069	A	19970225	US 1995-447601	19950523

PRIORITY APPLN. INFO.: US 1993-166115 19931213

OTHER SOURCE(S): MARPAT 124:261016

AB The invention concerns β3 agonists I [Ar = (un)substituted Ph, indanyl, indol-4-yl, naphthyl, tetrahydronaphthyl; R2, R3 = alkyl (sic); n = 0-3; Y = H, CO2H, alkoxycarbonyl, (un)substituted carbamoyl; only one Y = H; X = divalent radical -OCH2CH(OT)CH(R0)N(T)- or divalent heterocyclic radical Q; R0 = H, alkyl; T = H, alkyl, acyl; Z = CO, CS] and their pharmaceutically acceptable salts and esters. The compds. are useful for treating diabetes, hyperglycemia, and obesity, and for increasing lean meat in animals. For example, (R)-2-amino-1-(3,4-dimethoxyphenyl)propane was coupled with 1-naphthyl glycidyl ether, and the product was protected as an oxazolidinone, demethylated with BBr3, cyclized with di-Et dibromomalonate, and hydrolyzed, to give the benzodioxoledicarboxylic acid disodium salt II as a mixture of (R,R) and (S,R) isomers. Binding **assays** for II showed selectivity for β3 (lipolytic) over β1 effects, but not over β2 effects.

IC ICM A61K031-36
ICS C07D317-46

NCL 514465000

CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 18

IT 173597-41-6P, Diethyl 5-formyl-1,3-benzodioxole-2,2-dicarboxylate
174892-61-6P 174892-62-7P 174892-63-8P 174892-64-9P 174892-65-0P
174892-66-1P **174892-68-3P** 174892-69-4P **174892-70-7P**
174892-78-5P 174892-79-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

IT **174892-71-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

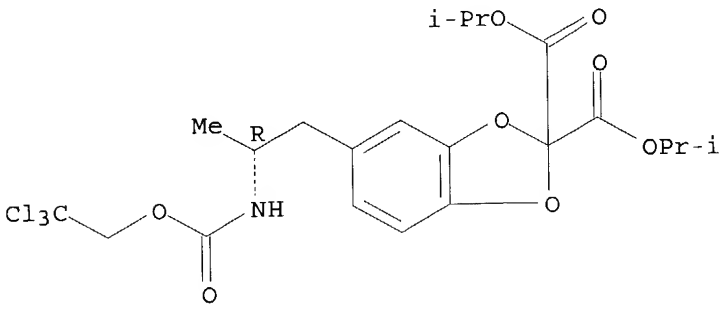
IT **174892-59-2P 174892-60-5P 174892-72-9P**
174892-73-0P 174892-74-1P **174892-76-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

IT **174892-68-3P 174892-70-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

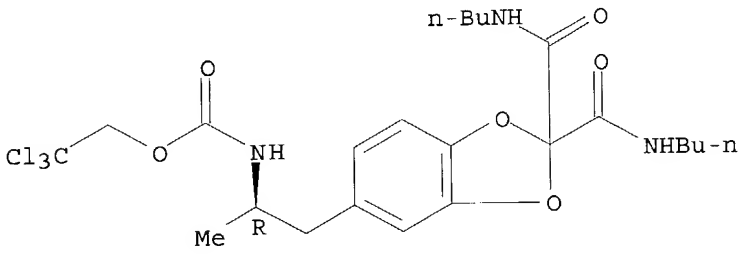
RN 174892-68-3 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[2-[[(2,2,2-trichloroethoxy)carbonyl]amino]propyl]-, bis(1-methylethyl) ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 174892-70-7 HCAPLUS
CN Carbamic acid, [2-[2,2-bis[(butylamino)carbonyl]-1,3-benzodioxol-5-yl]-1-methylethyl]-, 2,2,2-trichloroethyl ester, (R)- (9CI) (CA INDEX NAME)

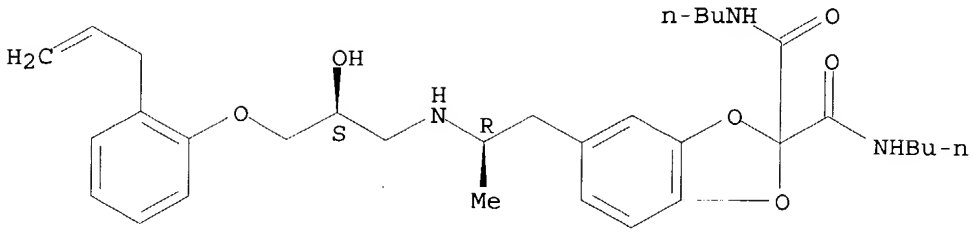
Absolute stereochemistry.



IT **174892-71-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

RN 174892-71-8 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxamide, N,N'-dibutyl-5-[2-[[2-hydroxy-3-[2-(2-propenyl)phenoxy]propyl]amino]propyl]-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

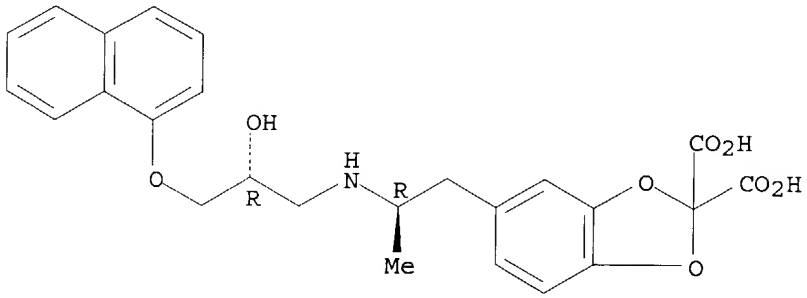


IT **174892-59-2P 174892-60-5P 174892-72-9P**
174892-73-0P 174892-76-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of β3-adrenergic benzodioxoledicarboxylates as antidiabetics and lipolytics)

RN 174892-59-2 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[2-[[2-hydroxy-3-(1-naphthalenyloxy)propyl]amino]propyl]-, disodium salt, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

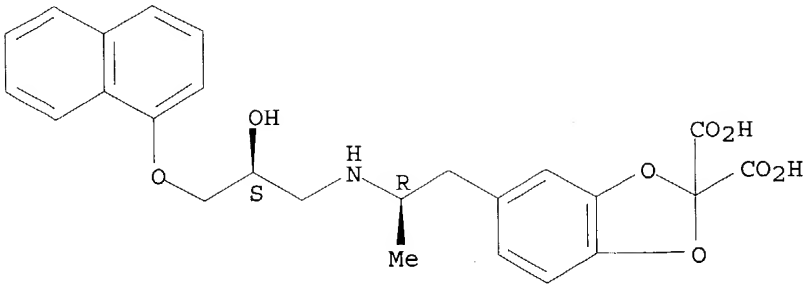


●2 Na

RN 174892-60-5 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[2-[[2-hydroxy-3-(1-naphthalenyloxy)propyl]amino]propyl]-, disodium salt, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

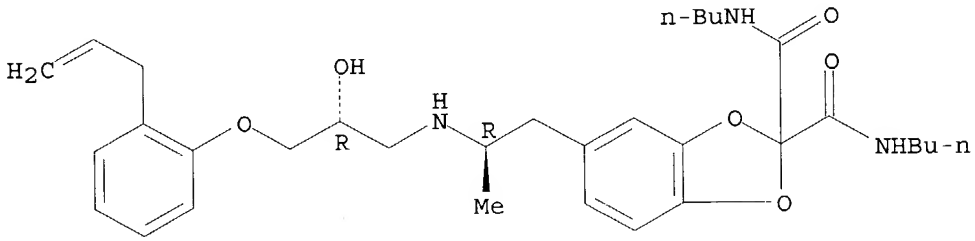
Absolute stereochemistry.



●2 Na

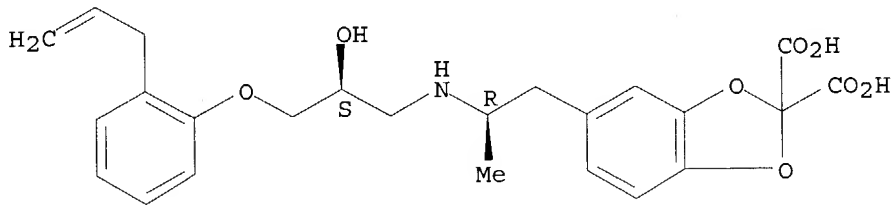
RN 174892-72-9 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxamide, N,N'-dibutyl-5-[2-[[2-hydroxy-3-[2-(2-propenyl)phenoxy]propyl]amino]propyl]-, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



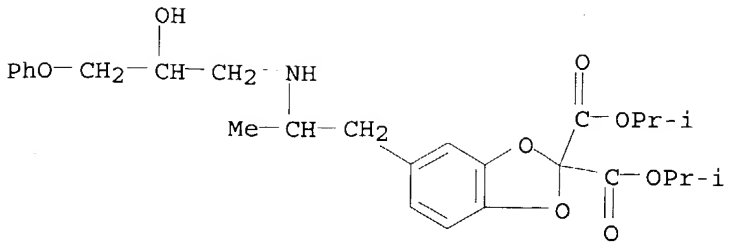
RN 174892-73-0 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[2-[[2-hydroxy-3-[2-(2-propenyl)phenoxy]propyl]amino]propyl]-, disodium salt, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

RN 174892-76-3 HCAPLUS
CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[2-[(2-hydroxy-3-phenoxypropyl)amino]propyl]-, bis(1-methylethyl) ester (9CI) (CA INDEX NAME)



L8 ANSWER 34 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:352451 HCAPLUS
DOCUMENT NUMBER: 122:151975
TITLE: β2-Adrenoceptors mediate a reduction in endothelial permeability in vitro
AUTHOR(S): Allen, Michael J.; Coleman, Robert A.
CORPORATE SOURCE: Department of Pharmacology 1, Glaxo Research and Development Ltd., Park Road, Ware Herts, SG12 0DP, UK
SOURCE: European Journal of Pharmacology (1995), 274(1-3), 7-15
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The permeability of bovine pulmonary artery endothelial (CPAE) monolayers to Evans blue-**labeled albumin** (Evans blue-**albumin**) has been measured in vitro. Thrombin caused a concentration-dependent increase in Evans blue-**albumin** clearance across endothelial monolayers. Isoprenaline inhibited thrombin-induced Evans blue-**albumin** clearance in a concentration-dependent manner (EC50 21 nM). This effect was mimicked by the selective β2-adrenoceptor agonists salbutamol (EC50 64 nM) and salmeterol (EC50 2.7 nM), but not by the selective β1-adrenoceptor agonist, RO-363 ((1-[3',4'-dihydroxyphenoxy]-2-hydroxy- [3'',4''-dimethoxyphenethylamino]-propane)oxalate), nor by the selective β3-adrenoceptor agonist, CL-316,243 (disodium (R,R)-5-[2-[[2-(3-chlorophenyl)-2-hydroxyethyl]-amino]propyl]-1,3-benzodioxole-2,2-dicarboxylate). Isoprenaline, salbutamol and salmeterol, but not RO-363 or CL-316,243 produced small, but significant redns. in Evans blue-**albumin** clearance across unstimulated endothelial monolayers. Inhibition of the response to thrombin by isoprenaline was antagonized by the selective β2-adrenoceptor antagonist, ICI-118,551 ((erythro-DL-1(7-methylindan-4-yloxy)3-isopropylaminobutan-2-ol), pKB 8.4). Salmeterol also inhibited hydrogen peroxide-stimulated Evans blue-**albumin** clearance. Hence, the widely used β2-adrenoceptor agonists, salbutamol and salmeterol, are able to reduce endothelial permeability at nanomolar concns.

CC 2-8 (Mammalian Hormones)
Section cross-reference(s): 1

IT 7683-59-2, Isoprenaline 18559-94-9, Salbutamol 72795-19-8 74513-77-2, RO-363 89365-50-4, Salmeterol **138908-40-4**, CL-316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

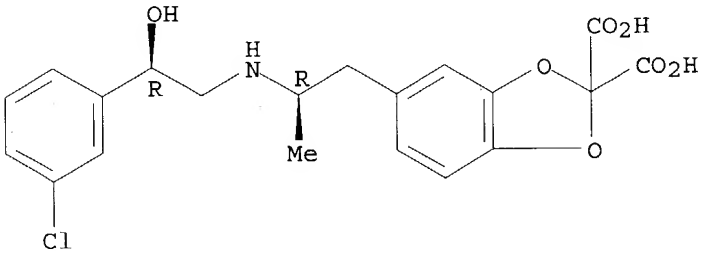
(adrenoceptors in mediation of endothelial permeability in vitro)

IT **138908-40-4**, CL-316243
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adrenoceptors in mediation of endothelial permeability in vitro)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L8 ANSWER 35 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:329636 HCAPLUS
DOCUMENT NUMBER: 122:97047
TITLE: Characterization of β1- and β3-adrenoceptors in intact brown adipocytes of the rat
AUTHOR(S): D'Allaire, Francois; Atgie, Claude; Mauriege, Pascale; Simard, Pierre-Michel; Bukowiecki, Ludwik Jan
CORPORATE SOURCE: Fac. Med., Laval Univ., QC, G1K 7P4, Can.
SOURCE: British Journal of Pharmacology (1995), 114(2), 275-82
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The binding properties of β1-, β2- and β3-adrenoceptors were determined in isolated brown adipocytes of the rat rather than in membrane prepns. from tissue homogenates, because typical brown adipocytes represent only about 40% of the various cells present in brown adipose tissue. Binding characteristics were assessed with the hydrophilic β-adrenoceptor radioligand, (-)-[3H]-CGP 12177. The potent β-antagonist, bupranolol (100 μM) was used to determine nonspecific binding. Characterization was essentially performed by saturation and competition studies. The saturation curve of (-)-[3H]-CGP 12177 was clearly biphasic (Hill coefficient, nH = 0.57) indicating the presence of two different β-adrenoceptor populations of high (KD = 0.24 nM) and low (KD = 80 nM) affinity. The low affinity sites were more numerous (Bmax = 121,000,000 sites/cell) than the high affinity sites (Bmax = 12,000 sites/cell). (-)-[3H]-CGP 12177 (25 nM) was displaced by adrenaline (Ad), noradrenaline (NA), isoprenaline (Iso), phenylephrine (Phe) and by the new β3 agonist, CL 316,243 (CL) in a biphasic pattern. The order of potency for (-)-[3H]-CGP 12177 displacement from the small population of

high affinity sites (Iso » NA > Ad » CL » Phe) was in agreement with a β1/β2-classification. In contrast, the potencies of the same agonists for displacing the radioligand from the low affinity binding sites (CL » Iso > NA > Ad » Phe) revealed the presence of a distinct population of adrenoceptors obeying a β3-classification. 5-HT did not displace (-)-[3H]-CGP 12177 (25 nM) when used at concns. as high as 0.1 nM. The β-adrenoceptor antagonist, (-)-bupranolol, was more effective than (-)-propranolol for displacing (-)-[3H]-CGP 12177 (25 nM) from the high (Ki = 0.029 and 0.19 nM, resp.) and low (Ki = 0.27 μM and 1.6 μM, resp.) affinity binding sites. The selective β1-antagonist CGP 20712A efficiently displaced the radioligand from a small population (Ki = 65 pM) of binding sites, confirming the presence of β1-adrenoceptors. To evaluate whether β2-adrenoceptors could be identified in the population of high affinity binding sites, displacement studies were performed at a low concentration of (-)-[3H]-CGP 12177 (4 nM) that mainly **labeled** β1/β2-adrenoceptors. ICI 118 551 (a selective β2-antagonist) and procaterol (a selective β2-agonist) displaced (-)-[3H]-CGP 12177 from its binding sites with very low affinity (Ki = 0.17 μM and K1 = 11 μM resp.). From these observations, the authors conclude that: (1) two kinds of binding sites with low and high affinities for (-)-[3H]-CGP 12177 can be detected in intact brown adipocytes, (2) there are 10 times more low than high affinity β-adrenoceptors, as determined by saturation or competition curve anal., (3) the high affinity binding sites mainly correspond to β1-adrenoceptors, whereas the low affinity sites represent β3-adrenoceptors, and (4) β2-adrenoceptors are undetectable. It is suggested that the low affinity β3-adrenoceptors represent the physiol. receptors for noradrenaline secreted from sympathetic nerve endings when the concentration of the neurohormone in the synaptic cleft is very high and/or when the high affinity β1-adrenoceptors are desensitized by prolonged sympathetic stimulation such as chronic cold exposure.

CC 2-8 (Mammalian Hormones)

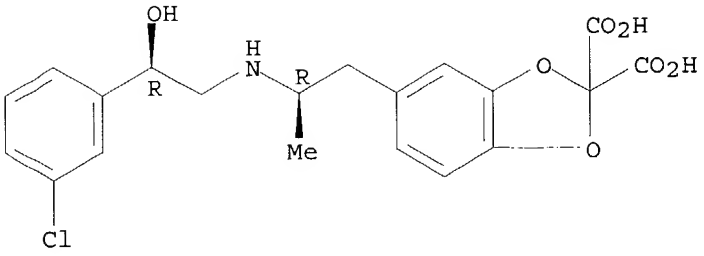
IT 95840-76-9, (-)-CGP 12177 **138908-40-4**, CL 316243
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(β1- and β3-adrenoceptors in intact brown adipocytes of the rat)

IT **138908-40-4**, CL 316243
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(β1- and β3-adrenoceptors in intact brown adipocytes of the rat)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L8 ANSWER 36 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:623776 HCAPLUS
DOCUMENT NUMBER: 121:223776
TITLE: Microwave-induced rapid preparation of fluoro-derivatives of amphetamine, methamphetamine, and 3,4-methylenedioxymethamphetamine for GC-MS confirmation **assays**
AUTHOR(S): Thompson, William C.; Dasgupta, Amitava
CORPORATE SOURCE: School of Medicine, University of New Mexico, Albuquerque, NM, 87106, USA
SOURCE: Clinical Chemistry (Washington, DC, United States) (1994), 40(9), 1703-6
CODEN: CLCHAU; ISSN: 0009-9147
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We prepared trifluoroacetyl, pentafluoropropyl, and heptafluorobutyl derivs. of amphetamine, methamphetamine, and 3,4-methylenedioxymethamphetamine (MDMA) in 45 s, 1 min, and 6 min, resp., by using microwave irradiation Conventional techniques require heating the reaction mixture for 15 min at 40°C for trifluoroacetyl derivs., 15 min at 75°C for pentafluoropropyl derivs., and 40 min at 60°C for heptafluorobutyl derivs. The mass-spectral fragmentation patterns and the gas-chromatog. retention times of the derivs. obtained by both microwave irradiation and conventional heating were similar. Perfluorooctanoyl derivs. of amphetamine can be prepared quant. by either heating the reaction mixture for 30 min at 60°C or by 1 min of microwave irradiation Conversion of methamphetamine and MDMA to the corresponding perfluorooctanoyl derivs. was not quant. by either technique, although the yield of the derivative in the conventional technique was much higher.

CC 4-2 (Toxicology)
Section cross-reference(s): 1

IT Chromatography, gas
Legal chemistry and medicine
Mass spectrometry
Microwave
(Microwave-induced rapid preparation of fluoro- derivs. of amphetamine, methamphetamine, and methylenedioxymethamphetamine for GC-MS confirmation **assays**)

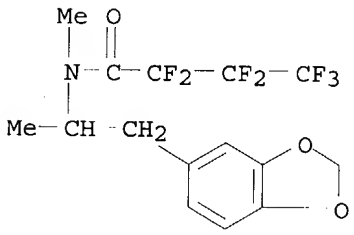
IT Urine analysis
(human; Microwave-induced rapid preparation of fluoro- derivs. of amphetamine, methamphetamine, and methylenedioxymethamphetamine for GC-MS confirmation **assays**)

IT 300-62-9DP, Amphetamine, fluoro derivs. 331-04-4P 537-46-2DP,

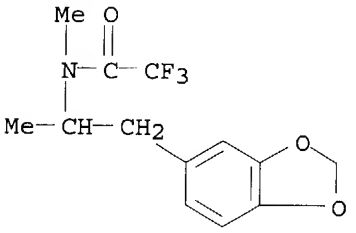
Methamphetamine, fluoro derivs. 42542-10-9DP, 3,4-Methylenedioxymethamphetamine, fluoro derivs. 70363-72-3P 90582-01-7P 120442-70-8P 121478-04-4P 156572-16-6P **156572-21-3P** **158097-59-7P 158097-60-0P 158097-62-2P** 158189-59-4P 158189-61-8P
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(Microwave-induced rapid preparation of fluoro- derivs. of amphetamine, methamphetamine, and methylenedioxymethamphetamine for GC-MS confirmation **assays**)

IT **156572-21-3P 158097-59-7P 158097-60-0P 158097-62-2P**
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(Microwave-induced rapid preparation of fluoro- derivs. of amphetamine, methamphetamine, and methylenedioxymethamphetamine for GC-MS confirmation **assays**)

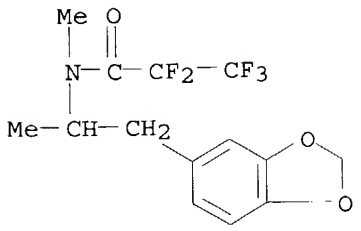
RN 156572-21-3 HCAPLUS
CN Butanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,3,3,4,4,4-heptafluoro-N-methyl- (9CI) (CA INDEX NAME)



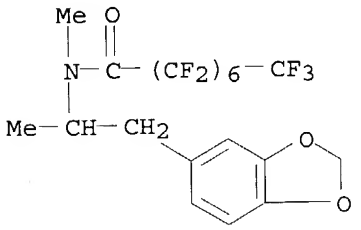
RN 158097-59-7 HCAPLUS
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,2-trifluoro-N-methyl- (9CI) (CA INDEX NAME)



RN 158097-60-0 HCAPLUS
CN Propanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,3,3,3-pentafluoro-N-methyl- (9CI) (CA INDEX NAME)



RN 158097-62-2 HCAPLUS
CN Octanamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-N-methyl- (9CI) (CA INDEX NAME)



L8 ANSWER 37 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:473669 HCAPLUS
DOCUMENT NUMBER: 121:73669
TITLE: Antidiabetic and antiobesity effects of a highly selective β3-adrenoceptor agonist (CL 316,243)
AUTHOR(S): Largis, Elwood E.; Burns, Michael G.; Muenkel, Helen A.; Dolan, Jo Alene; Claus, Thomas H.
CORPORATE SOURCE: American Cyanamid Co., Med. Res. Division, Pearl River, NY, 10965, USA
SOURCE: Drug Development Research (1994), 32(2), 69-76
CODEN: DDREDK; ISSN: 0272-4391
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A third β-adrenoceptor subtype has been cloned from the rat, mouse, and human genomes. The presence of these receptors primarily on adipose tissue has raised the possibility that β3-adrenoceptor selective agonists may be useful antiobesity agents. CL 316,243 is a highly selective β3-agonist; it has a >30,000 to 1 β3-to-β1-adrenoceptor selectivity ratio and a 10,000 to 1 β3-to-β2-adrenoceptor selectivity ratio in in vitro functional **assays**. In vivo, animals were treated with CL 314,698, a diester prodrug of CL 316,243, which is rapidly converted to CL 316,243. In obese (ob/ob) and diabetic (db/db) mice, treatment with Cl 314,698 reduced their hyperglycemia to the euglycemia of their lean littermates, and decreased plasma insulin levels. In obese mice, the compound also caused decreased weight gain despite increased food consumption, and the decreased weight was due to loss of fat while lean body mass was spared. CL 314,698 treatment also improved both glucose and insulin tolerance in obese mice, suggesting that it decreased insulin resistance. CL 314,698 also prevented further weight gain, without affecting food consumption, in rats previously made obese by feeding a high fat diet. The compound reduced plasma insulin and

triglyceride levels, and reduced fat pad wts., while having no effect on plasma glucose, cholesterol, thyroxine, or T3 levels or on skeletal muscle weight Decreased weight gain without decreased food consumption suggested that CL 316,243 stimulated thermogenesis. Treatment of obese mice for 3 wk with CL 316,243 increased thermogenesis by 45% as measured by indirect calorimetry. Thus, CL 316,243 is a potent, β3-adrenoceptor selective agonist with thermogenic, antidiabetic, and antiobesity properties in several models of non-insulin dependent diabetes and obesity.

CC 1-11 (Pharmacology)

IT **138908-40-4**, CL 316243
RL: BIOL (Biological study)
(antidiabetic and antiobesity and thermogenic activities of, as β3-adrenergic receptor agonist)

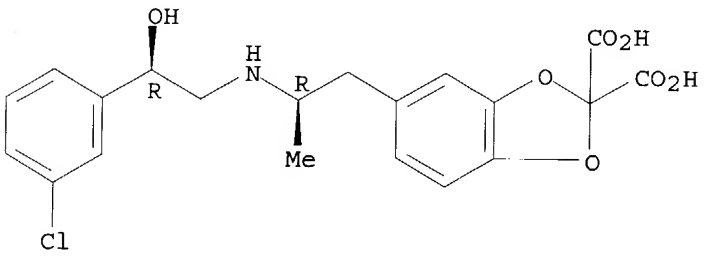
IT **138908-34-6**, CL 314698
RL: BIOL (Biological study)
(antidiabetic and antiobesity and thermogenic activities of, β3-adrenergic receptor agonist activity in relation to)

IT **138908-40-4**, CL 316243
RL: BIOL (Biological study)
(antidiabetic and antiobesity and thermogenic activities of, as β3-adrenergic receptor agonist)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

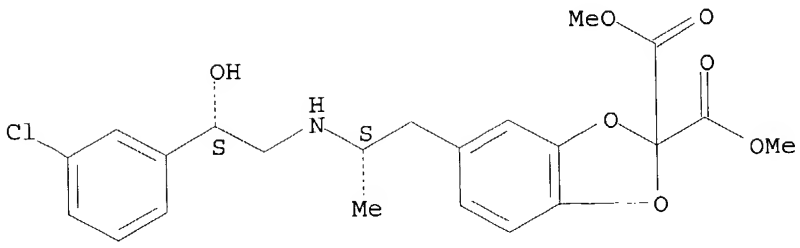


IT **138908-34-6**, CL 314698
RL: BIOL (Biological study)
(antidiabetic and antiobesity and thermogenic activities of, β3-adrenergic receptor agonist activity in relation to)

RN 138908-34-6 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, dimethyl ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L8 ANSWER 38 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:473519 HCAPLUS
DOCUMENT NUMBER: 121:73519
TITLE: Beta-3 adrenoceptor selectivity of the dioxolane dicarboxylate phenethanolamines
AUTHOR(S): Dolan, Jo Alene; Muenkel, Helen A.; Burns, Michael G.; Pellegrino, Susan M.; Fraser, Claire M.; Pietri, France; Strosberg, A. Donny; Largis, Elwood E.; Dutia, Minu D.; et al.
CORPORATE SOURCE: Cardiovascular Mol. Biol. Dep., American Cyanamid Co., Pearl River, NY, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1994), 269(3), 1000-6
CODEN: JPETAB; ISSN: 0022-3565
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The beta-1, beta-2 and beta-3 adrenergic properties of several benzodioxole-containing phenethranolamines were determined in vitro in both functional and binding **assays**. In addition, two of the compds. were evaluated for their effects on radioligand binding and cAMP production in stably transfected Chinese Hamster Ovary (CHO) cells expressing the cloned rat or human beta-3 adrenoceptor or the human beta-2 or beta-1 adrenoceptor. The (±)-R*,R*-racemate, CL 314,514, and the pure (-)-R,R enantiomer, CL 316,243, stimulated rat adipocyte lipolysis (beta-3 effect) with EC50 values in the low nanomolar range, while having no effect on the rate of contraction of guinea pig atria (beta-1 effect) and little or no ability to prevent the insulin-stimulated incorporation of [14C]glucose into rat soleus muscle glycogen (beta-2 effect) with concns. as great as 100 μM. The lack of beta-1 and beta-2 adrenergic activity was confirmed by the low affinity of compds. for beta-1 or beta-2 adrenoceptors in plasma membranes from rat heart or rat soleus muscle, resp. In CHO cells expressing each human beta adrenoceptor subtype, CL 314,514 bound to beta-3-CHO cells with a Ki of 2 μM and stimulated cAMP production with an activation constant (Kact) of 1 μM, whereas it did not bind to either beta-1- or beta-2-CHO cells at 100 μM. CL 316,243 bound to membranes from rat beta-3-CHO cells with a Ki of 1 μM and stimulated cAMP production in beta-3-CHO cells with a Kact of 0.7 nM. These results indicate that CL 314,514 and CL 316,243 are highly selective agonists for the beta-3 adrenoceptor and as such may be useful for the treatment of diabetes and obesity.

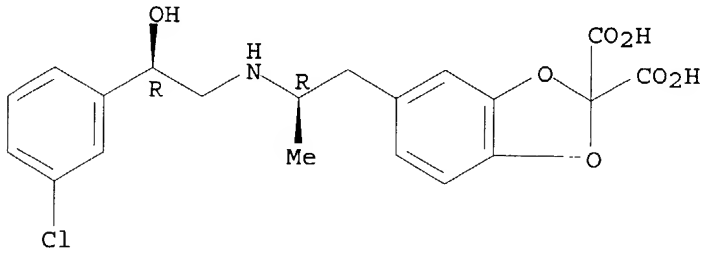
CC 1-10 (Pharmacology)
IT **138908-40-4**, CL 316243 **139014-45-2**, CL 314514
RL: BIOL (Biological study)
(β adrenergic properties of, in various tissues, treatment of diabetes and obesity in relation to)
IT **138908-40-4**, CL 316243 **139014-45-2**, CL 314514
RL: BIOL (Biological study)
(β adrenergic properties of, in various tissues, treatment of

diabetes and obesity in relation to)

RN 138908-40-4 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

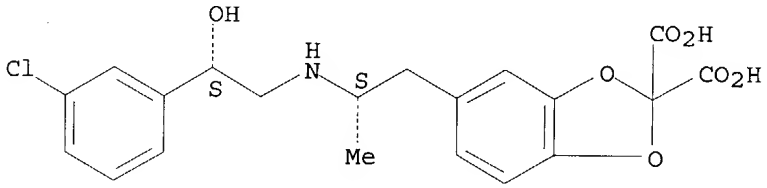


●2 Na

RN 139014-45-2 HCAPLUS

CN 1,3-Benzodioxole-2,2-dicarboxylic acid, 5-[(2R)-2-[[(2R)-2-(3-chlorophenyl)-2-hydroxyethyl]amino]propyl]-, disodium salt, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



●2 Na

L8 ANSWER 39 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:551590 HCAPLUS

DOCUMENT NUMBER: 119:151590

TITLE: Stereoselective disposition: enantioselective quantitation of 3,4-(methylenedioxy)methamphetamine and three of its metabolites by gas chromatography/electron capture negative ion chemical ionization mass spectrometry

AUTHOR(S): Lim, H. K.; Su, Z.; Foltz, R. L.

CORPORATE SOURCE: Cent. Hum. Toxicol., Univ. Utah, Salt Lake City, UT, 84108, USA

SOURCE: Biological Mass Spectrometry (1993), 22(7), 403-11
CODEN: BIMSEH; ISSN: 1052-9306

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new chiral **assay** for 3,4-(methylenedioxy)methamphetamine (MDMA) and three of its metabolites in biol. specimens is based on direct aqueous derivation with N-heptafluorobutyryl-S-prolyl chloride, followed by capillary-chromatog. separation of the diastereomeric derivs. and detection by a mass spectrometer operated in the electron capture neg. ion chemical ionization mode. The **assay** is linear from 5 to 1000 ng/mL for each enantiomer and allows simultaneous quantitation of MDMA and three of its metabolites in biol. specimens. Investigation of the disposition of racemic MDMA in rats and mice revealed quant. differences in the disposition of the enantiomers of MDMA in these species; the most noteworthy result was a 2-fold greater urinary excretion of the neurotoxic S-(+)-MDMA by mice than by rats. Only MDMA and 3,4-(dimethylenedioxy)amphetamine enantiomers were detected at measurable concns. in the frontal cortex and hippocampus from rats given 10 mg racemic MDMA/kg; in this species the enantiomeric profiles of these 2 compds. were similar in brain and urine.

CC 1-2 (Pharmacology)

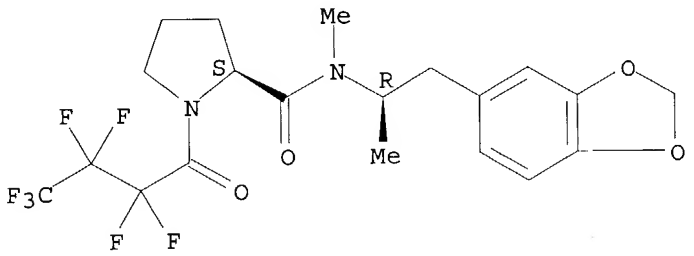
IT **150163-96-5 150163-97-6 150163-98-7**
150163-99-8 150164-00-4 150164-01-5 150164-02-6
150164-03-7 **150164-04-8 150164-05-9**
RL: PRP (Properties)
(mass spectra of)

IT **150163-96-5 150163-97-6 150163-98-7**
150163-99-8 150164-04-8 150164-05-9
RL: PRP (Properties)
(mass spectra of)

RN 150163-96-5 HCAPLUS

CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-methyl-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

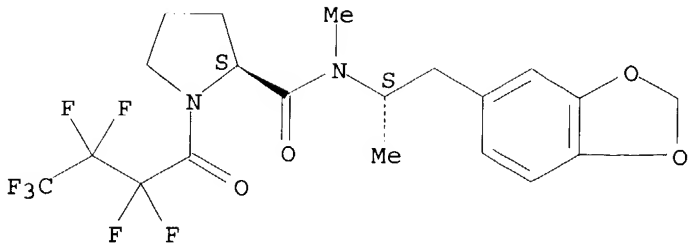
Absolute stereochemistry.



RN 150163-97-6 HCAPLUS

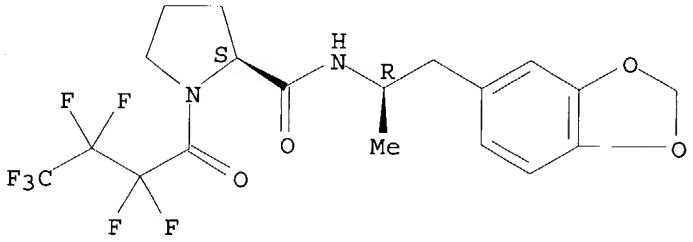
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-methyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



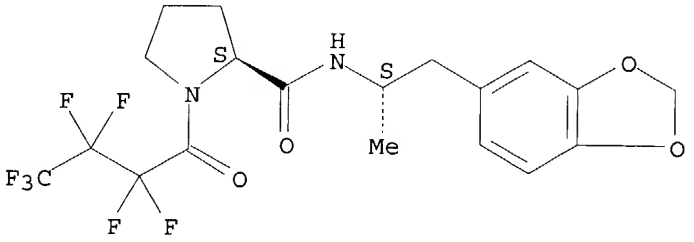
RN 150163-98-7 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



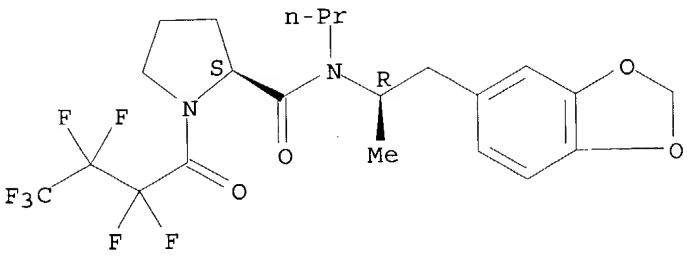
RN 150163-99-8 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



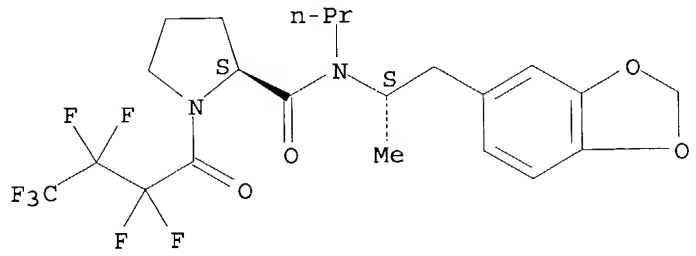
RN 150164-04-8 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-propyl-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 150164-05-9 HCAPLUS
CN 2-Pyrrolidinecarboxamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-1-(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)-N-propyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

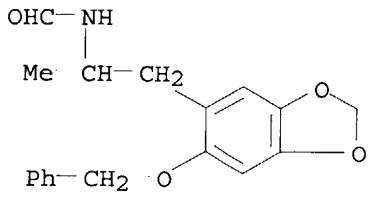
Absolute stereochemistry.



L8 ANSWER 40 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:99167 HCAPLUS
DOCUMENT NUMBER: 116:99167
TITLE: Synthesis and neurotoxicological evaluation of putative metabolites of the serotonergic neurotoxin 2-(methylamino)-1-[3,4-(methylenedioxy)phenyl]propane [(methylenedioxy)methamphetamine]
AUTHOR(S): Zhao, Zhiyang; Castagnoli, Neal, Jr.; Ricaurte, George A.; Steele, Thomas; Martello, Mary
CORPORATE SOURCE: Dep. Chem., Virginia Polytech. Inst. and State Univ., Blacksburg, VA, 24061, USA
SOURCE: Chemical Research in Toxicology (1992), 5(1), 89-94
CODEN: CRTOEC; ISSN: 0893-228X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Theor. considerations and recent exptl. data have prompted an investigation of the neurotoxicol. properties of the 6-hydroxydopamine analog 2-(methylamino)-1-(2,4,5-trihydroxyphenyl)propane (I) and its possible precursor 1-[2-hydroxy-4,5-(methylenedioxy)phenyl]-2-(methylamino)propane (II), potential metabolites of the serotonergic neurotoxin (methylenedioxy)methamphetamine (MDMA). Systemic, **intracerebroventricular**, and intraparenchymal (intrastriatal and intracortical) administration of II led to no detectable alterations of hippocampal or cortical serotonin or striatal dopamine levels in the rat under conditions that caused significant biogenic amine depletions by established neurotoxins. By contrast, intraparenchymal administration of I caused profound depletions of dopamine and serotonin, with the former being more severely depleted than the latter. Although not conclusive, these data suggest a possible role for I in the mediating of MDMA's

neurotoxic actions.
CC 1-11 (Pharmacology)
Section cross-reference(s): 4, 28
IT 138698-29-0P **138698-31-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction with lithium aluminum hydride)
IT **138698-31-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and reduction with lithium aluminum hydride)
RN 138698-31-4 HCAPLUS
CN Formamide, N-[1-methyl-2-[6-(phenylmethoxy)-1,3-benzodioxol-5-yl]ethyl]-(9CI) (CA INDEX NAME)



L8 ANSWER 41 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1987:432989 HCAPLUS
DOCUMENT NUMBER: 107:32989
TITLE: Methcathinone: a new and potent amphetamine-like agent
AUTHOR(S): Glennon, Richard A.; Yousif, Mamoun; Naiman, Noreen; Kalix, Peter
CORPORATE SOURCE: Med. Coll. Virginia, Virginia Commonw. Univ., Richmond, VA, 23298, USA
SOURCE: Pharmacology, Biochemistry and Behavior (1987), 26(3), 547-51
CODEN: PBBHAU; ISSN: 0091-3057
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect of N-monomethylation of phenylisopropylamine derivs. on amphetamine-like activity was examined With the exception of methcathinone, all of the new N-methyl derivs. were prepared by acylation of the corresponding primary amine with ethyl chloroformate, followed by reduction of the resulting carbamate esters with lithium aluminum hydride. In tests of stimulus generalization using rats trained to discriminate 1.0 mg/kg of (+)-amphetamine from saline, the N-monomethyl derivs. of 1-(X-phenyl)-2-aminopropane, where X = 2,4-dimethoxy-, 3,4-dimethoxy-, 2,4,5-trimethoxy-, and 2-methoxy-4,5-methylenedioxy-, did not produce amphetamine-appropriate responding at the doses evaluated. However, the racemic N-monomethyl derivative of cathinone (racemic methcathinone), like racemic cathinone, resulted in stimulus generalization. Further studies with this agent revealed that (a) in the amphetamine-trained animals, methcathinone is more potent than racemic cathinone or racemic amphetamine; (b) methcathinone is capable of inducing release of radioactivity from 3H-**labeled** dopamine-prelabeled tissue of rat caudate nucleus in a manner similar to that observed with cathinone, amphetamine, and (+)-methamphetamine; and (c) methcathinone is more potent than cathinone as a locomotor stimulant in mice as determined by their effect on spontaneous activity. The results of the present study provide evidence for a structural analogy between the prototypic psychostimulants

amphetamine/methamphetamine and cathinone/methcathinone, and lend further support to the concept that amphetamine and cathinone correspond in their pharmacol. effects.

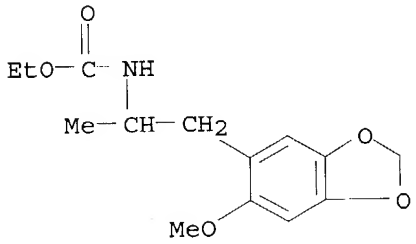
CC 1-11 (Pharmacology)
Section cross-reference(s): 25

IT 29238-31-1 108925-26-4 **108925-27-5** 108925-28-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of)

IT **108925-27-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of)

RN 108925-27-5 HCAPLUS

CN Carbamic acid, [2-(6-methoxy-1,3-benzodioxol-5-yl)-1-methylethyl]-, ethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 42 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:626419 HCAPLUS

DOCUMENT NUMBER: 105:226419

TITLE: Derivatives of 1-(1,3-benzodioxol-5-yl)-2-butanamine: representatives of a novel therapeutic class

AUTHOR(S): Nichols, David E.; Hoffman, Andrew J.; Oberlender, Robert A.; Jacob, Peyton, III; Shulgin, Alexander T.

CORPORATE SOURCE: Sch. Pharm. Pharm. Sci., Purdue Univ., West Lafayette, IN, 47907, USA

SOURCE: Journal of Medicinal Chemistry (1986), 29(10), 2009-15
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:226419

AB The title compds. I (R = Me, Et; R1 = H, Me) were prepared An asym. synthesis was used to prepare the enantiomers of I. Both the racemates and enantiomers were evaluated in the two-lever drug discrimination **assay** in rats trained to discriminate saline from 0.08 mg/kg of LSD tartrate. Stimulus generalization occurred with racemic and R-(-)-I (R = Me, R1 = H) and S-(+)-I (R = Et, R1 = H). No generalization occurred with the other enantiomers or with I (R1 = Me). Human psychopharmacol. studies revealed that I (R = Et, R1 = Me) was nonhallucinogenic and that it had a new, novel psychoactive effect. It is suggested that I (R = Et, R1 = Me) is the prototype of a new pharmacol. class that may have value in facilitating psychotherapy and that this class be designated as entactogens.

CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

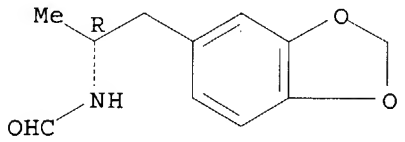
IT **103818-39-9P 103818-40-2P 103818-43-5P**
103818-44-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and reduction of)

IT **103818-39-9P 103818-40-2P 103818-43-5P**
103818-44-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

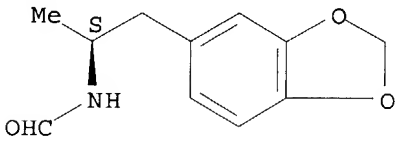
RN 103818-39-9 HCAPLUS
CN Formamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



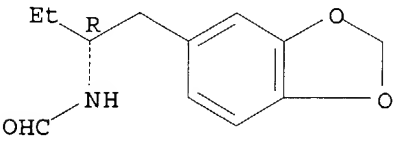
RN 103818-40-2 HCAPLUS
CN Formamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



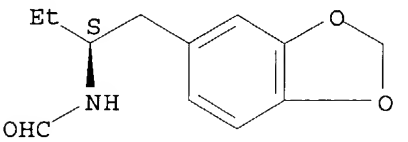
RN 103818-43-5 HCAPLUS
CN Formamide, N-[1-(1,3-benzodioxol-5-ylmethyl)propyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 103818-44-6 HCAPLUS
CN Formamide, N-[1-(1,3-benzodioxol-5-ylmethyl)propyl]-, (S)- (9CI) (CA INDEX NAME)

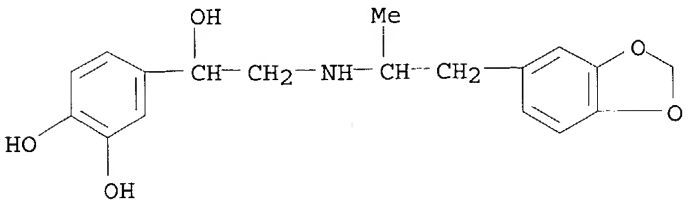
Absolute stereochemistry.



L8 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1982:465988 HCAPLUS
DOCUMENT NUMBER: 97:65988
TITLE: Effects of N-aralkyl substitution of β-agonists on α- and β-adrenoceptor subtypes: pharmacological studies and binding **assays**
AUTHOR(S): Decker, N.; Quennedey, M. C.; Rouot, B.; Schwartz, J.; Velly, J.
CORPORATE SOURCE: Inst. Pharmacol., Fac. Med. 11, Strasbourg, 67000, Fr.
SOURCE: Journal of Pharmacy and Pharmacology (1982), 34(2), 107-12
CODEN: JPPMAB; ISSN: 0022-3573
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The pharmacol. and binding properties of 4 β-adrenomimetic drugs with N-alkyl substitutions (isoprenaline [7683-59-2], terbutaline [23031-25-6], salbutamol [18559-94-9], and soterenol [13642-52-9]) were compared with those of 4 corresponding drugs with N-aralkyl substitutions (protokylol **[136-70-9]**, ME 506 [37750-84-8], salmefamol [18910-65-1], and zinterol [37000-20-7]) and with BD-40A [43229-80-7]. The β1- and β2-activities of these drugs were determined on guinea pig atria and trachea, their α-adrenolytic activity was measured on rat aorta, and their affinities (Ki) for α1- and α2-adrenoceptors on rat cortical membranes were assessed using tritiated prazosin and yohimbine. Substitution of the N-alkyl by an N-aralkyl group had a variable effect on the β2-selectivity whereas α-adrenolytic properties were always enhanced. Ki Values for both α1- and α2-adrenoceptors were increased but the effect was much more pronounced for α-adrenoceptors. Thus the α-adrenolytic activity observed with N-aralkyl β-agonists was selective for α1-adrenoceptors.

CC 1-3 (Pharmacology)
IT **136-70-9** 7683-59-2 13642-52-9 18559-94-9 18910-65-1 23031-25-6 37000-20-7 37750-84-8 43229-80-7
RL: BIOL (Biological study)
(α- and β-adrenergic effects of, structure in relation to)
IT **136-70-9**
RL: BIOL (Biological study)
(α- and β-adrenergic effects of, structure in relation to)
RN 136-70-9 HCAPLUS
CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 44 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:131966 HCAPLUS
DOCUMENT NUMBER: 94:131966
TITLE: Rat liver β-adrenergic receptors: identification

and characterization with (-)[3H]dihydroalprenolol

AUTHOR(S): Munnich, A.; Geynet, P.; Schmelck, P. H.; Hanoune, J.
CORPORATE SOURCE: Inst. Natl. Sante Rech. Med., Hop. Henri Mondor, Creteil, Fr.
SOURCE: Hormone and Metabolic Research (1981), 13(1), 18-21
CODEN: HMMRA2; ISSN: 0018-5043
DOCUMENT TYPE: Journal
LANGUAGE: English

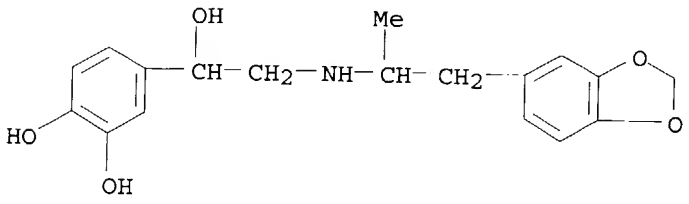
AB The potent competitive β-adrenergic antagonist, 3H- **labeled** (-)di-hydroalprenolol (I) [59624-90-7] was used to identify binding sites which have the characteristics of β-adrenoreceptors in membranes from rat liver. The binding of I-3H to membranes derived from control and adrenalectomized rats was rapid, reversible, and saturable with 60 and 150 fmol bound/mg of protein at saturation, resp. Half-maximal saturation occurred at 1.5 to 3.5 nM. β-Adrenergic agonists and antagonists competed for the binding sites with a typical β2-adrenergic specificity. The order of potency of agonists was protokylol **[136-70-9]** > (-)isoproterenol [51-31-0] > (-)epinephrine [51-43-4] > (-)norepinephrine [51-41-2]. (-)-Isomers of β-adrenergic agents were consistently more potent than their corresponding (+)-isomers to inhibit binding and to activate or inhibit adenylate cyclase. A good correlation was found between the order of potency of various drugs in stimulating or inhibiting the catecholamine-sensitive adenylate cyclase and in competing for the I-3H binding sites. Therefore, the I-3H binding sites studied appear to be equivalent to the β-adrenergic receptor in hepatic plasma membranes.

CC 1-2 (Pharmacodynamics)
Section cross-reference(s): 13

IT 51-31-0 51-41-2 51-43-4 54-49-9 59-42-7 99-45-6 **136-70-9** 149-95-1 150-05-0 395-28-8 586-06-1 1937-89-9 2549-15-7 2964-04-7 4199-09-1 5051-22-9 6673-35-4 13523-86-9 13655-52-2 18559-94-9 23031-25-6 36894-69-6 55011-77-3 69925-27-5 77107-92-7
RL: BIOL (Biological study)
(β-adrenergic receptor characterization and dihydroalprenolol binding by liver in relation to)

IT **136-70-9**
RL: BIOL (Biological study)
(β-adrenergic receptor characterization and dihydroalprenolol binding by liver in relation to)

RN 136-70-9 HCAPLUS
CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 45 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:514061 HCAPLUS
DOCUMENT NUMBER: 93:114061

TITLE: Centrally active N-substituted analogs of 3,4-methylenedioxyphenylisopropylamine (3,4-methylenedioxyamphetamine)

AUTHOR(S): Braun, Ulrich; Shulgin, Alexander T.; Braun, Gisela

CORPORATE SOURCE: Inst. Pharmacol., Univ. Bonn, Bonn, 53, Fed. Rep. Ger.

SOURCE: Journal of Pharmaceutical Sciences (1980), 69(2), 192-5
CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The known central nervous system activity of 3,4-(CH2O2)C6H3CH2CHMeNRR1 (R = H, R1 = H or Me) prompted the synthesis of a series of analogs with substituents on the N atom. Most of these analogs (R = alkyl, alkenyl, hydroxy, alkoxy, alkoxyalkyl) were prepared by the reductive alkylation of 3,4-(CH2O2)C6H3CH2COMe with the appropriate amine and NaBH3CN. Hindered isomers were synthesized indirectly. Measurements of their pharmacol. activity in several animal **assays** and in human subjects indicated that the central activity decreased with the increasing bulk of the N-substituent.

CC 25-4 (Noncondensed Aromatic Compounds)
Section cross-reference(s): 1, 28

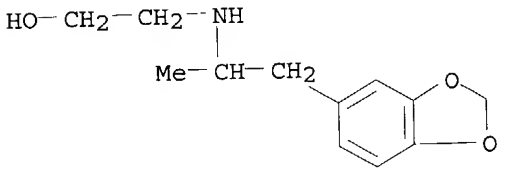
IT 4764-17-4P 22698-08-4P 25070-60-4P 42542-10-9P 65033-29-6P
74698-36-5P 74698-37-6P 74698-38-7P 74698-39-8P 74698-40-1P
74698-41-2P 74698-42-3P **74698-43-4P 74698-44-5P**
74698-45-6P 74698-46-7P 74698-47-8P 74698-48-9P 74698-49-0P
74698-50-3P 74698-51-4P 82801-81-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and effect of, on central nervous system)

IT **36209-71-9P** 52271-42-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

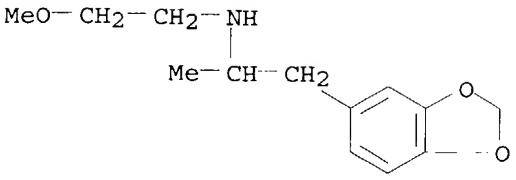
IT 2980-08-7P 6292-91-7P 64057-70-1P **74341-74-5P** 74341-75-6P
74341-76-7P 74341-77-8P 74341-78-9P 74341-79-0P **74341-80-3P**
74341-81-4P 74341-82-5P 74341-83-6P 74341-84-7P 74341-85-8P
74341-86-9P 74698-52-5P 74698-53-6P 74698-54-7P 74698-55-8P
74698-56-9P 74698-57-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **74698-43-4P 74698-44-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and effect of, on central nervous system)

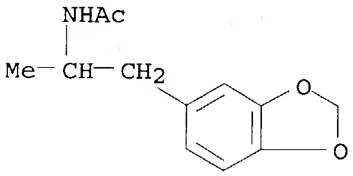
RN 74698-43-4 HCAPLUS
CN Ethanol, 2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]- (9CI) (CA INDEX NAME)



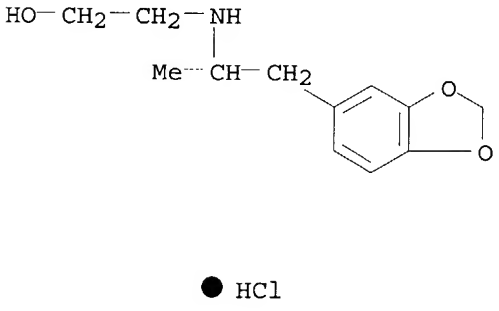
RN 74698-44-5 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-(2-methoxyethyl)-α-methyl- (9CI) (CA INDEX NAME)



IT **36209-71-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 36209-71-9 HCAPLUS
CN Acetamide, N-[2-(1,3-benzodioxol-5-yl)-1-methylethyl]- (9CI) (CA INDEX NAME)

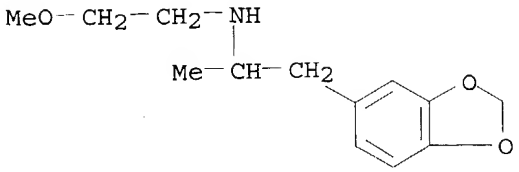


IT **74341-74-5P 74341-80-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 74341-74-5 HCAPLUS
CN Ethanol, 2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 74341-80-3 HCAPLUS
CN 1,3-Benzodioxole-5-ethanamine, N-(2-methoxyethyl)-α-methyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L8 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:483111 HCAPLUS
DOCUMENT NUMBER: 91:83111
TITLE: Evidence for essential disulfide bonds in β1-adrenergic receptors of turkey erythrocyte membranes. Inactivation by dithiothreitol
AUTHOR(S): Vauquelin, Georges; Bottari, Serge; Kanarek, Louis; Strosberg, A. Donny
CORPORATE SOURCE: Lab. Biochem. Pathol. Protein Chem., Free Univ. Brussels, St. Genesius-Rode, B-1640, Belg.
SOURCE: Journal of Biological Chemistry (1979), 254(11), 4462-9
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The titrated β-adrenergic antagonist (-)-dihydroalprenolol binds to a single class of noncooperative sites on turkey erythrocyte membranes. These sites have previously been identified as the functional β-adrenergic receptors. Treatment of the membranes with the reducing agent dithiothreitol decreased the number of binding sites, without affecting the affinity of (-)-dihydroalprenolol for the remaining sites. The binding activity was partially restored by extensive washing of the dithiothreitol-treated membranes. No restoration occurred when the wash buffer contained 2 mM N-ethylmaleimide or 10 mM reduced glutathione. The effect of dithiothreitol was mimicked by a hundred-fold higher concentration of the monosulfhydryl derivs. reduced glutathione, cysteine, and mercaptoethanol. In contrast, treatment of the membranes with the metal chelators ethylenediaminetetraacetate and ethylene glycol bis(β-aminoethyl ether)-N,N'-tetraacetic acid (10 mM) did not affect (-)-dihydroalprenolol binding. Kinetic data indicated that dithiothreitol inactivates the β-receptors according to a biomol. reaction mechanism, with a 2nd-order rate constant (k2) of approx. 1.27 M-1 x s-1 at 30°. The data suggest that dithiothreitol inactivates the β-receptors by reducing 1 or more disulfide bonds. Both β-adrenergic agonists and antagonists caused an effective protection of the (-)-dihydroalprenolol binding sites against inactivation by dithiothreitol. The protection was dose-dependent, and linearly related to the fraction of receptor sites occupied by the **tracer**. The protection was stereospecific for both agonists ((-)-epinephrine bitartrate [51-42-3]) and antagonists ((-)-propranolol [4199-09-1]) and reflected, for the same concentration of agonists, the order of affinities for the receptor. The α-adrenergic agents clonidine [4205-90-7] (agonist) and phentolamine [50-60-2] (antagonist), and the nonbioactive compound pyrocatechol [120-80-9] did not confer an appreciable protection at concns. as high as 100 μM. Receptor protection by β-adrenergic

agonists and antagonists proceeds either by causing a conformational change of the receptors so as to bury the disulfide bonds or by shielding bonds located near or at the binding site of the receptor.

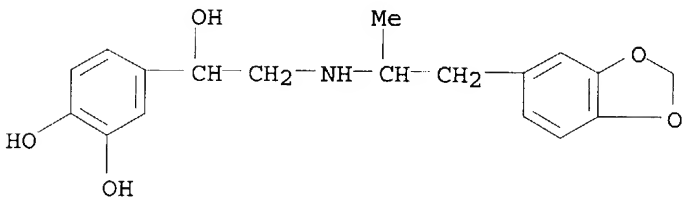
CC 1-4 (Pharmacodynamics)
Section cross-reference(s): 12

IT 51-42-3 **136-70-9** 636-89-5 4199-09-1 5051-22-9 54750-10-6
RL: BIOL (Biological study)
(β-adrenergic receptor inactivation by dithiothreitol protection by)

IT **136-70-9**
RL: BIOL (Biological study)
(β-adrenergic receptor inactivation by dithiothreitol protection by)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 47 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:413629 HCAPLUS

DOCUMENT NUMBER: 91:13629

TITLE: Identity of [3H]-dihydroalprenolol binding sites and β-adrenergic receptors coupled with adenylate cyclase in the central nervous system: pharmacological properties, distribution and adaptive responsiveness

AUTHOR(S): Dolphin, Annette; Adrien, Joelle; Hamon, Michel; Bockaert, Joel

CORPORATE SOURCE: Lab. Physiol. Cell., Coll. France, Paris, Fr.

SOURCE: Molecular Pharmacology (1979), 15(1), 1-15
CODEN: MOPMA3; ISSN: 0026-895X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The bindings of 3H-**labeled** (-)-dihydroalprenolol [59624-90-7] and β-adrenergic-sensitive adenylate cyclase [9012-42-4] were measured in particulate fractions prepared from cat and rat brain. Dihydroalprenolol-3H interacted with a single class of rat cortical sites, having an affinity of 7 nM and a concentration of 169 fmole/mg protein. Dihydroalprenolol-3H inhibited competitively the (-)-isoproterenol [51-31-0]-sensitive adenylate cyclase with an apparent KI of 10 nM. The KDapp of dihydroalprenolol-3H and the total number of specific binding sites were identical whether or not the detns. were made under conditions of adenylate cyclase **assay**. The apparent affinities of β-adrenergic agonists and antagonists for adenylate cyclase stimulation or inhibition were highly correlated with their apparent affinities for dihydroalprenolol-3H binding sites, whether determined under adenylate cyclase incubation conditions (r = 0.98) or not (r = 0.95). Both processes were stereospecific for agonists and antagonists and showed the characteristics of a β-adrenergic receptor. Salbutamol

[18559-94-9], a β2-adrenergic agonist in peripheral tissues, appeared to be an antagonist of the β1-adrenergic receptor coupled to an adenylate cyclase in the cerebral cortex. The topog. distribution of dihydroalprenolol-3H binding sites in rat frontal cerebral cortex was parallel to that of (-)-isoproterenol-sensitive adenylate cyclase, but not to that of dopamine-sensitive adenylate cyclase; similarly, the topog. distribution of dihydroalprenolol-3H binding sites in different areas of cat brain was highly correlated with that of (-)-isoproterenol-sensitive adenylate cyclase (r = 0.963), but not with endogenous norepinephrine content. Intraventricular administration of 6-hydroxydopamine [1199-18-4] to five-day old cats resulted in an increase both in dihydroalprenolol-3H binding sites and in adenylate cyclase stimulation by (-)-isoproterenol. The augmentation in binding sites increased with time after the lesion, whereas the increase observed in (-)-isoproterenol-sensitive adenylate cyclase activity did not. Chronic treatment of rats with reserpine [50-55-5] produced a 50% increase in dihydroalprenolol-3H binding sites and a 43% increase in (-)-isoproterenol-sensitive adenylate cyclase. Chronic (±)-propranolol [13013-17-7] treatment also resulted in a significant increase in the concns. of dihydroalprenolol-3H binding sites (31%), which was more pronounced than that observed in the (-)-isoproterenol-sensitive adenylate cyclase (17%). Chronic treatment with either chlorpromazine [50-53-3] or phenoxybenzamine [59-96-1] had no effect on either process. The affinity of dihydroalprenolol-3H for its binding sites or of (-)-isoproterenol for adenylate cyclase stimulation was not affected by any of the treatments. Thus, the similarities between the pharmacol. characteristics, the topog. distribution, and the homeostatic regulation of the binding sites for dihydroalprenolol-3H and of the β-adrenergic receptor coupled with an adenylate cyclase leads to the conclusion that these two components are identical in the central nervous system.

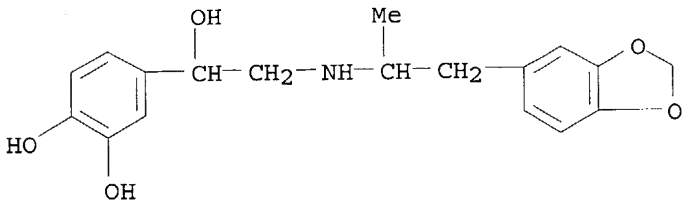
CC 1-5 (Pharmacodynamics)
Section cross-reference(s): 13

IT 50-37-3 50-60-2 51-41-2 51-43-4 **136-70-9** 2964-04-7
4199-09-1 5051-22-9 6673-35-4 23846-71-1
RL: BIOL (Biological study)
(β-adrenergic receptors interaction with, in brain, adenylate cyclase response in relation to)

IT **136-70-9**
RL: BIOL (Biological study)
(β-adrenergic receptors interaction with, in brain, adenylate cyclase response in relation to)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:413462 HCAPLUS
DOCUMENT NUMBER: 91:13462

TITLE: N-aralkyl substitution increases the affinity of adrenergic drugs for the α-adrenoceptor in rat liver
AUTHOR(S): Aggerbeck, Martine; Guellaen, Georges; Hanoune, Jacques
CORPORATE SOURCE: Unite Rech., Hop. Henri Mondor, Creteil, Fr.
SOURCE: British Journal of Pharmacology (1979), 65(1), 155-9
CODEN: BJPCBM; ISSN: 0007-1188
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Catecholamines and adrenergic compds. displayed an order of affinity typical of that for an α-adrenoreceptor in rat liver plasma membrane, studied by the use of the **labeled** specific α-antagonist, dihydroergocryptine (I). Protokylol [**136-70-9**], a potent β-adrenoceptor agonist exhibited a higher affinity than adrenaline [51-43-4] for α-sites, which may be due to its bulky substituent on the amino group. Displacement expts. between I and 4 pairs of drugs differently substituted on the amino group [(-)-isoprenaline [51-31-0] vs. (±)-Cc-25 [2549-15-7], orciprenaline [586-06-1] vs. fenoterol [13392-18-2], AH-3474 [22560-59-4] vs. labetalol [36894-69-6], pindolol [13523-86-9] vs. hydroxybenzylpindolol [54592-28-8]] showed that N-alkyl substitution decreased the affinity for α-sites (20μM < KD < 500μM), whereas an N-aralkyl one increased the affinity (0.17μM > KD > 4.6μM). Thus, substitution on the amino group by a bulky hydrophobic moiety enhances the affinity of drugs for the α-adrenoceptors.

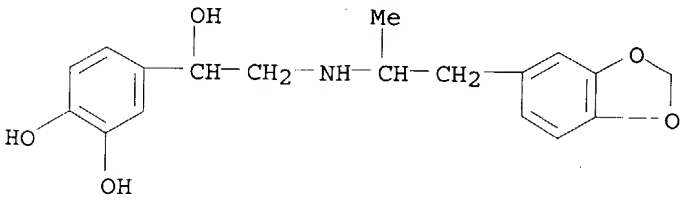
CC 1-3 (Pharmacodynamics)

IT 51-31-0 51-41-2 51-43-4 **136-70-9** 395-28-8 447-41-6 586-06-1 2549-15-7 7541-30-2 13392-18-2 13523-86-9 15687-41-9 18559-94-9 22560-59-4 36894-69-6 55011-77-3 69925-27-5
RL: PRP (Properties)
(affinity of, for α-adrenoceptor, N-aralkyl substitution effect on)

IT **136-70-9**
RL: PRP (Properties)
(affinity of, for α-adrenoceptor, N-aralkyl substitution effect on)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



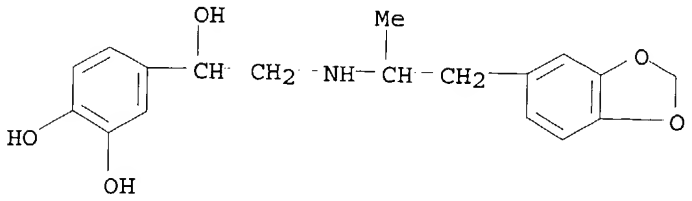
L8 ANSWER 49 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1979:133064 HCAPLUS
DOCUMENT NUMBER: 90:133064
TITLE: β-Adrenergic receptors coupled to adenylate cyclase in cat brain: regional distribution, pharmacological characteristics and adaptive responsiveness

AUTHOR(S): Dolphin, Annette; Bockaert, Joel
CORPORATE SOURCE: Lab. Phys. Cell., Coll. France, Paris, Fr.
SOURCE: Recent Adv. Pharmacol. Adrenoceptors, Proc. Satell. Symp. Int. Congr. Pharmacol., 7th (1978), 349-50. Editor(s): Szabadi, E.; Bradshaw, C. M.; Bevan, P. Elsevier: Amsterdam, Neth.
CODEN: 39YEAY
DOCUMENT TYPE: Conference
LANGUAGE: English

AB In 8 regions of adult cat brain the concentration of specific 3H-**labeled** (-)-dihydroalprenolol (I) [59624-90-7] binding sites was highly correlated with the maximum stimulation of adenylate cyclase (AC) [9012-42-4] by (-)-isoproterenol (II) [51-31-0] (5 + 20-5 M) but was not correlated with endogenous noradrenaline [51-41-2] concentration The largest concns. of β-adrenergic receptors coupled to AC were found in order in the cerebellum, temporal cortex, and hippocampus. In the cerebellum II (5 + 10-6 M) stimulated AC by 230%, and this stimulation was blocked by alprenolol (10-5 M) but not by fluphenazine (10-5 M). Maximal stimulation by (-)adrenaline [51-43-4] (10-4 M) was 379% and was partially inhibited by both alprenolol and fluphenazine. In the presence of alprenolol dopamine [51-61-6] (10-4 M) stimulated AC by 60%. In the presence of fluphenazine (10-5 M), to prevent the stimulation of AC coupled to these dopamine-type adrenergic receptors, the order of potency of stimulation of cerebellar AC by various adrenergic agonists (kA app in parentheses) was protokylol **[136-70-9]** (10-7 M) >II (3.2 + 10-7 M) >(-)-adrenaline = salbutamol [18559-94-9] (1.6 + 10-6 M) >(-)-noradrenaline (63 + 10-6 M). The other 2 regions, i.e. temporal cortex and hippocampus, both showed a lower stimulation by II (58%). This stimulation was completely blocked by alprenolol (10-5 M) and <than 10% inhibited by fluphenazine (10-5 M) in both regions. Stimulation by adrenaline in the temporal cortex was 167% and was inhibited to a greater extent by 10-5 M fluphenazine (64%) than by 10-5 M alprenolol (31%). In the presence of alprenolol (10-5 M), dopamine, stimulated AC in the temporal cortex by 138% and in the hippocampus by 50%. In the presence of fluphenazine (10-5 M), various adrenergic agonists stimulated AC in these 2 regions with similar potency. Salbutanol was ineffective as an agonist in either region. Practolol and butoxamine showed similar potencies, for the inhibition of II-stimulated AC in these 2 regions. Two days after 6-hydroxydopamine-induced lesions, when noradrenaline content was decreased by 90%, the increase in stimulation of AC by II was 106% in lesioned compared to sham-operated animals, whereas the increase in specific I-3H binding sites was 12.5%. No further increase was observed in II-stimulated AC activity in lesioned animals up to 70 days old. In contrast, the increase in I-3H binding sites was highly correlated with time elapsing after lesion, reaching a 71% increase in 70-day-old lesioned animals. The more rapid evolution of II stimulated AC than I-3H binding sites may be due to either a rapid increase in coupling between β-adrenergic receptors and AC immediately after lesion, before the slower adaptive increase in number of β-adrenergic receptors, or with the destruction of cortical noradrenergic innervation, to a loss of presynaptic β-adrenergic receptors which are not coupled or are poorly coupled to AC.

CC 2-1 (Hormone Pharmacology)
IT 51-31-0 51-43-4 51-61-6, biological studies **136-70-9**
18559-94-9
RL: BIOL (Biological study)
(adenylate cyclase of brain stimulation by, adrenergic receptors in relation to)
IT **136-70-9**

RL: BIOL (Biological study)
(adenylate cyclase of brain stimulation by, adrenergic receptors in relation to)
RN 136-70-9 HCAPLUS
CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 50 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1976:144583 HCAPLUS
DOCUMENT NUMBER: 84:144583
TITLE: Structure-activity relationships of adenylate cyclase-coupled beta adrenergic receptors: determination by direct binding studies
AUTHOR(S): Mukherjee, Chhabirani; Caron, Marc G.; Mullikin, Debra; Lefkowitz, Robert J.
CORPORATE SOURCE: Med. Cent., Duke Univ., Durham, NC, USA
SOURCE: Molecular Pharmacology (1976), 12(1), 16-31
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Recently developed techniques for directly studying ligand binding to beta adrenergic receptors with 3H-**labeled** (-)-alprenolol-HCl (I-HCl) [15132-12-4] were used to delineate in detail the binding specificity of the adenylate cyclase [9012-42-4]-coupled beta adrenergic receptors in a model system, the frog erythrocyte membrane. The abilities of 60 beta adrenergic agents to compete for the binding sites and to interact with the adenylate cyclase (as agonists or antagonists) were quantitated and compared. The specificity of the receptors determined by direct binding studies or by adenylate cyclase studies was comparable. The Kd values of the agents as determined by inhibition of I binding correlated well with their apparent dissociation consts. determined by enzyme studies. Agonists and antagonists appeared to compete for the same set of receptor binding sites. Structure-activity relationships determined by the direct binding studies were in excellent agreement with those previously determined in more intact tissue prepns. For agonists the structural features which determined receptor affinity (assessed by direct binding studies) were distinct from those which determined intrinsic activity (maximum ability to stimulate adenylate cyclase). The affinity of agonists was increased by increasing the size of the substituent on the amino nitrogen, by a (-) configuration of the hydroxyl on the β-carbon, and by the presence of a catechol moiety. Methyl or ethyl substitution on the α-carbon had only a slight (generally inhibitory) effect on affinity. Intrinsic activity of agonists was determined primarily by the nature of the substituents on the phenyl ring. Full intrinsic activity requires the presence of hydroxyl groups on the ring at positions 3 and 4 as well as the β-carbon hydroxyl in the (-) configuration. Deletion of the β-carbon hydroxyl, as in compds. such as dopamine-HCl [62-31-7], leads to substantial loss of intrinsic activity

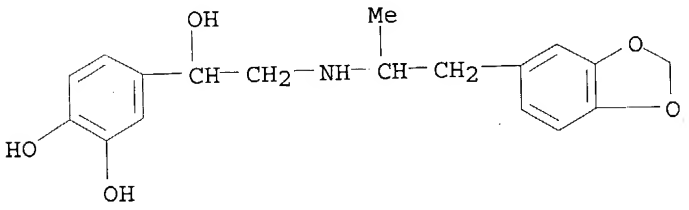
and affinity even in the presence of large amino nitrogen substituents. A methanesulfonamide group substituted for the hydroxyl in position 3 on the ring results in reduced intrinsic activity. Deletion of the ring hydroxyl at either position 3 or 4 or substitution by chlorine produces competitive antagonists. Structure-activity relationships of antagonists were similar to those of agonists, except that the catechol moiety was replaced by a single or double aromatic ring structure. Separation of this moiety from the ethanolamine side chain by an ether function significantly increased affinity. When a phenyl group was present, a single substituent at the para position was associated with reduced affinity.

CC 1-3 (Pharmacodynamics)
Section cross-reference(s): 13

IT 51-29-6 59-96-1 65-28-1 134-71-4 **136-69-6** 579-56-6
709-55-7 1937-88-8 13263-58-6 14816-67-2 23239-51-2 29208-41-1
37000-20-7 49745-95-1 51062-31-8 51062-35-2 53360-89-7
53562-77-9 54804-28-3 56458-76-5 58910-49-9 58910-50-2
58921-07-6 58943-68-3 69925-27-5
RL: PROC (Process)
(β-adrenergic receptor binding of, adenylate cyclase in relation to)

IT **136-69-6**
RL: PROC (Process)
(β-adrenergic receptor binding of, adenylate cyclase in relation to)

RN 136-69-6 HCAPLUS
CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L8 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:558126 HCAPLUS
DOCUMENT NUMBER: 83:158126
TITLE: Identification of adenylate cyclase-coupled β-adrenergic receptors in frog erythrocytes with (-)-[3H]alprenolol
AUTHOR(S): Mukherjee, Chhabirani; Caron, Marc G.; Coverstone, Michael; Lefkowitz, Robert J.
CORPORATE SOURCE: Med. Cent., Duke Univ., Durham, NC, USA
SOURCE: Journal of Biological Chemistry (1975), 250(13), 4869-76
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB (-)-Alprenolol-HCl [15132-12-4] a potent, competitive β-adrenergic antagonist **labeled** to high specific activity with tritium, was

used to identify binding sites in frog erythrocyte membranes having many of the characteristics to be expected of the β-adrenergic receptors which are linked to adenylate cyclase in these membranes. (-)-Alprenolol and (-)-[3H]alprenolol both competitively antagonize (-)-isoproterenol bitartrate [59-60-9] stimulation of frog erythrocyte membrane adenylate cyclase [9012-42-4] with a KD of 5 to 10 nM. At 37°, equilibrium binding was established within 5 min and the half-time for dissociation of bound (-)-[3H]alprenolol was approx. 30 s. This rapid onset and dissociation of (-)-[3H]alprenolol binding was in good agreement with the rapid onset of action of β-adrenergic agonists and antagonists on the frog erythrocyte adenylate cyclase. (-)-[3H]Alprenolol binding was saturable. There were 0.25 to 0.35 pmole of (-)-[3H]alprenolol binding sites/mg protein, corresponding to 1300 to 1800 binding sites/intact frog erythrocyte. The binding sites showed half-maximum saturation at 5.0 to 10 nM (-)-[3H]alprenolol, which is in good agreement with the KD for alprenolol antagonism of isoproterenol stimulation of adenylate cyclase. The (-)-[3H]alprenolol binding sites exhibited strict stereospecificity. (-)-Stereoisomers of β-adrenergic antagonists or agonists were approx. 2 orders of magnitude more potent than the (+)-stereoisomers in competing for the binding sites. Comparable stereospecificity was apparent when agonists and antagonists were tested for their ability to interact with the adenylate cyclase-coupled β-adrenergic receptors in the membranes. Potency series of 11 agonists and 13 antagonists for inhibition of binding and interaction with adenylate cyclase were identical and were characteristic of a β2-adrenergic receptor. A variety of nonphysiol. active compds. containing a catechol moiety as well as several metabolites and cholinergic agents did not inhibit (-)-[3H]alprenolol binding or interact significantly as agonists or antagonists with the adenylate cyclase. The (-)-[3H]alprenolol binding sites studied appear to be equivalent to the β-adrenergic receptor binding sites in the frog erythrocyte membranes.

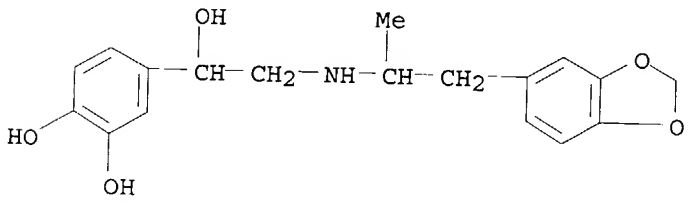
CC 2-1 (Hormone Pharmacology)
Section cross-reference(s): 1

IT 51-29-6 51-40-1 51-42-3 59-60-9 59-96-1 65-28-1 **136-70-9** 154-86-9 636-88-4 636-89-5 1937-88-8 3930-20-9 4076-05-5 4199-10-4 6042-61-1 6673-35-4 13071-11-9 13263-58-6 14816-67-2 37000-20-7 56458-76-5
RL: BIOL (Biological study)
(alloprenolol binding and adenylate cyclase of erythrocyte in response to)

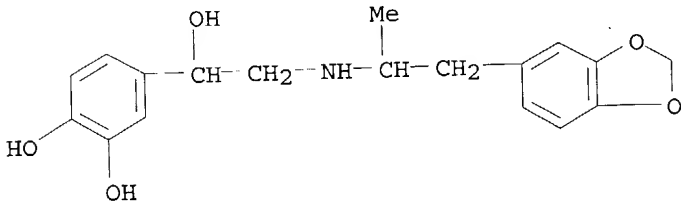
IT **136-70-9**
RL: BIOL (Biological study)
(alloprenolol binding and adenylate cyclase of erythrocyte in response to)

RN 136-70-9 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 52 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1973:497034 HCAPLUS
DOCUMENT NUMBER: 79:97034
TITLE: Analysis of liquid cough remedies. 3
AUTHOR(S): Eiden, Fritz; Khammash, Gudrun
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, Fed. Rep. Ger.
SOURCE: Pharmazeutische Zeitung (1973), 118(17), 638-45
CODEN: PHZIAP; ISSN: 0031-7136
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Tables of Rf values and detection data (uv, reagents) were given for some 31 compds. in H2O-soluble (WF) and (or) NaOH-NH3 (AF) fractions, plus 2 **tracer** dyes. The compds., in MeOH solution, were run thin layer silica gel plates, with use of 4 (WF) and 3 (AF) different solvents. Also shown were: the above for addnl. compds. in the aqueous residue, Rf values for 5 ethereal oils that may appear in the WF and for decomposition products of 4 compds.; and profiles (Rf vs. solvent system) of the groups.
CC 64-3 (Pharmaceutical Analysis)
IT 50-70-4 50-81-7, analysis 50-99-7, analysis 57-48-7, analysis 57-50-1, analysis 58-15-1 58-55-9 58-73-1 59-42-7 68-35-9 76-57-3 76-58-4 77-51-0 77-92-9, analysis 81-88-9 87-69-4, analysis 92-12-6 100-88-9 123-03-5 125-28-0 131-28-2 134-71-4 **136-70-9** 144-80-9 299-42-3 365-26-4 469-21-6 479-18-5 483-18-1 510-07-6 519-98-2 586-06-1 630-86-4 791-35-5 1321-14-8 2016-36-6 2167-85-3 7007-76-3 7681-79-0 14007-64-8 18760-80-0 26590-31-8 28728-91-8
RL: ANT (Analyte); ANST (Analytical study)
(detection of)
IT **136-70-9**
RL: ANT (Analyte); ANST (Analytical study)
(detection of)
RN 136-70-9 HCAPLUS
CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 53 OF 53 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1964:403733 HCAPLUS
DOCUMENT NUMBER: 61:3733
ORIGINAL REFERENCE NO.: 61:537e
TITLE: Nonketol reduction of tetrazolium salts in pharmaceutical analysis
AUTHOR(S): Salim, Edward F.; Manni, Peter E.; Sinsheimer, Joseph E.
CORPORATE SOURCE: Univ. of Michigan, Ann Arbor
SOURCE: Journal of Pharmaceutical Sciences (1964), 53(4), 391-4
CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Many nonketol compds. of pharmaceutical interest reduced tetrazolium salts in low concns. indicating applicability to determination in pharmaceutical formulations. Expts. indicated Blue Tetrazolium was the superior reagent. Specific procedures were developed for epinephrine solution (Brit. Pharmacopeia) and diethylpropion-HCl tablets.

CC 30 (Pharmaceuticals)

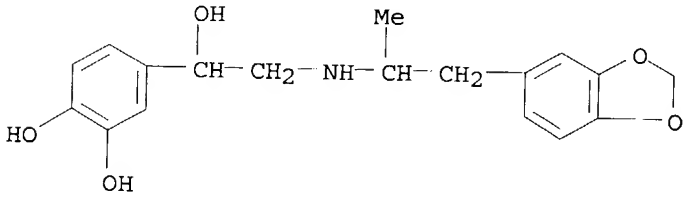
IT Pharmaceuticals
(**assay**, tetrazolium salts in)

IT 50-42-0, Acetic acid, diphenyl-, 2-(diethylamino)ethyl ester, hydrochloride 50-44-2, Purine-6-thiol 52-66-4, Valine, 3-mercapto-, DL- 52-90-4, Cysteine 58-27-5, 1,4-Naphthoquinone, 2-methyl- 59-52-9, 1-Propanol, 2,3-dimercapto- 59-87-0, 2-Furaldehyde, 5-nitro-, semicarbazone 59-98-3, 2-Imidazoline, 2-benzyl- 60-56-0, Imidazole-2-thiol, 1-methyl- 66-76-2, Coumarin, 3,3'-methylenebis[4-hydroxy- 67-20-9, Hydantoin, 1-[(5-nitrofurfurylidene)amino]- 67-45-8, 2-Oxazolidinone, 3-[(5-nitrofurfurylidene)amino]- 68-39-3, 3-Isoxazolidinone, 4-amino- 77-04-3, 2,4-(1H,3H)-Pyridinedione, 3,3-diethyl- 77-21-4, Glutarimide, 2-ethyl-2-phenyl- 77-27-0, Barbituric acid, 5-allyl-5-(1-methylbutyl)-2-thio- 82-66-6, 1,3-Indandione, 2-(diphenylacetyl)- 84-80-0, Phylloquinone 86-35-1, Hydantoin, 3-ethyl-5-phenyl- 87-66-1, Pyrogallol 113-98-4, Penicillin G, potassium salt 125-64-4, 2,4-Piperidinedione, 3,3-diethyl-5-methyl- 129-77-1, Acetic acid, diphenyl-, 1-ethyl-3-piperidyl ester, hydrochloride **136-69-6**, Benzyl alcohol, 3,4-dihydroxy-α-[[[α-methyl-3,4-(methylenedioxy)phenethyl]amino]methyl]-, hydrochloride 136-77-6, Resorcinol, 4-hexyl- 153-18-4, Rutin 298-59-9, 2-Piperidineacetic acid, α-phenyl-, methyl ester, hydrochloride 314-19-2, Apomorphine, hydrochloride 481-06-1, Santonin 548-68-5, Acetic acid, diphenylthio-, S[2-(diethylamino)ethyl] ester, hydrochloride 1143-38-0, 1,8,9-Anthracenetriol 1146-98-1, 1,3-Indandione, 2-(p-bromophenyl)- 1497-17-2, Succinimide, 2-methyl-2-phenyl- 3614-69-5, Pyridine, 2-[1-[2-[2-(dimethylamino)ethyl]inden-3-yl]ethyl]-, maleate (1:1) 13213-99-5, Ammonium, diethyl(2-hydroxyethyl)methyl 52225-20-4, 6-Chromanol, 2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-, acetate
(reaction with blue tetrazolium, kinetics of)

IT **136-69-6**, Benzyl alcohol, 3,4-dihydroxy-α-[[[α-methyl-3,4-(methylenedioxy)phenethyl]amino]methyl]-, hydrochloride
(reaction with blue tetrazolium, kinetics of)

RN 136-69-6 HCAPLUS

CN 1,2-Benzenediol, 4-[2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl